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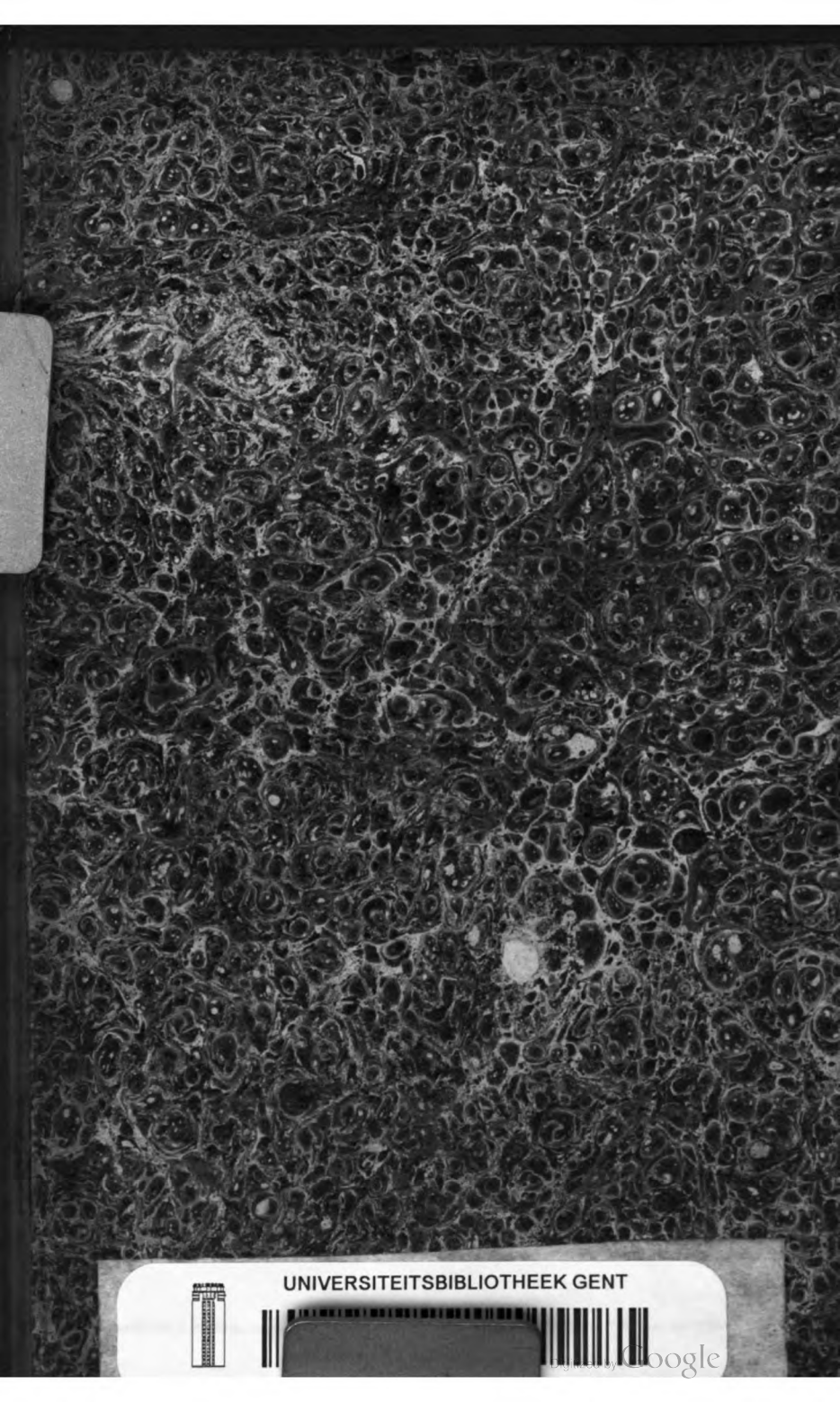
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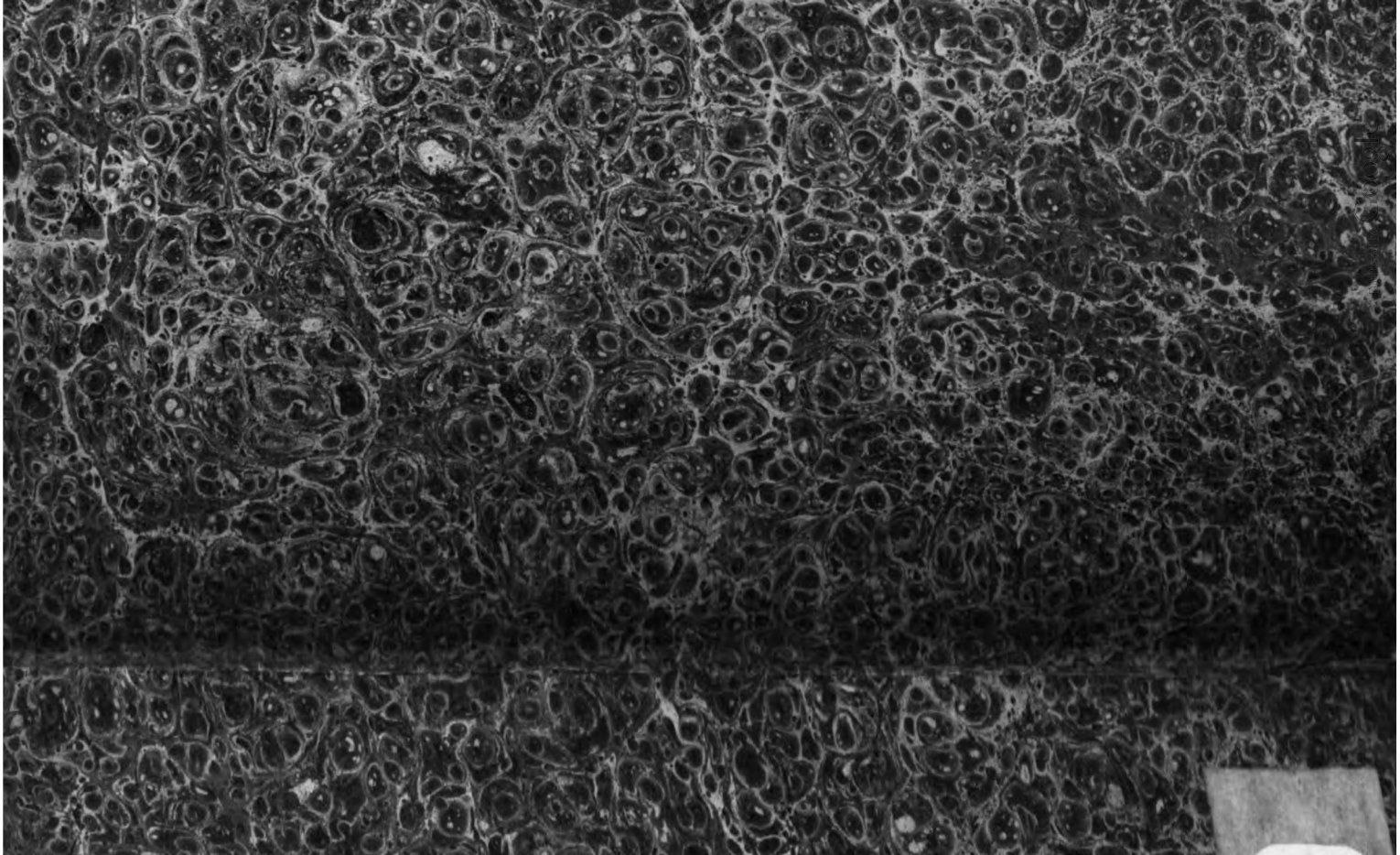

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THE

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To Dr. ADAMS.

DEAR SIR,

IN compliance with your wishes, I have used all diligence in collecting facts concerning the horses that died, or were killed, after being bitten by a supposed rabid dog. You will, perhaps, think me tediously minute in some parts; but as all that is related has been collected with the most scrupulous exactness, it appeared that your record would be more valuable in proportion as every part should be supported by collateral evidence.

I am, &c.

J. SURR.

Clerkenwell, 13 *Dec.* 1809.

THE horses ascertained to have been bitten were five; whether the number was greater, is not certain, rumour speaking of one or more in the Borough. Those under consideration were all attacked between Shoreditch church and the bank of England. The dog which bit the whole was a sheep dog, of the long haired breed; as all were bitten in the nose or lips, the habits of the dog may perhaps account for the uniformity of his attack.

The first notice which the writer could obtain of him, was his biting a dog belonging to Mr. Harper, butcher, near Shoreditch church, on Saturday, October 21, about seven in the morning. From the dog he flew on a horse belonging to Mess. Risdon and Townsend, Curtain Road, standing within a few yards, in the shafts of a cart. He displayed much pertinacity in his design, making a third leap after two unsuccessful ones, by which he caught hold of the nose, and remained suspended nearly a minute. After detaching himself, he ran up one of the roads, seized and shook a bitch by the side of a cart. In a little while he returned by Old Street Road, thence to Shore-

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ditch, and proceeded into Bishopsgate Street, where he seized a horse belonging to Mr. Ashenden, Cumberland Street, Curtain Road. By the Vine Inn he bit a horse belonging to Mr. Gray, the Royston carrier. In Wormwood Street he bit one belonging to Mr. Teanby, Old Street; displaying the same pertinacity in retaining his hold, the horse being compelled to strike him off with his fore feet. Lastly, he ran into Threadneedle Street, seized by the upper lip a mare in a cart belonging to Mr. Crow, butcher, and standing across the street. His furious manner excited the attention of the shopmen, who sallied out after him, towards the Bank, opposite which, by the aid of one of the labourers at the Auction Mart, he was killed. He was taken to Mr. Crow's yard, and remained there some time after the death of his mare; but before the writer could call for information, had been removed; a circumstance to be regretted, as the comparison of any morbid appearances with those in the horses, might havepointed to a similarity or dissimilarity as to the nature and seat of the disease. Mr. Harper caused his dog to be drowned as speedily as possible; but of the bitch no account has been obtained. It has not been ascertained that he attacked any human subject.

Let us now attend to all the circumstances in the order they occurred; first, with respect to Messrs. Risdon and Townsend's horse.

Mr. Harper the butcher being a spectator, and persuaded as to the madness of the dog, immediately sent the horse home; so that in about three quarters of an hour the bitten parts were freely cut out by Mr. Jones, veterinary surgeon in the Curtain Road; the wound healed without trouble, and to appearance soundly; a well closed seam only remaining, and comparatively without any cicatrizing hardness.

The horse was a black gelding about seven years old; of a disposition so gentle and docile, that he would follow the ordinary stable attendants, when bid to do so.

His owner, Mr. Townsend, aware of the circumstances, had kept his eye over him, and found that after a fortnight he fell off from his food, though he continued to eat more or less. He continued his work also till the evening of Saturday the twenty-first day after being bitten, but fell down suddenly whilst shooting the last load. This caused him to be attended to with care, and placed in a stall slightly separated from the other horses, but in the same stable.

On

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On Sunday morning, Mr. Townsend found him very ill; offered him some water, which he seemed desirous of drinking; filled his mouth several times with it, but suffered it to escape; was chiefly intent on rubbing his nose against the pail and manger, displaying signs of uneasiness and impatience, such as pawing, restlessness, &c. He was from this day to the last, drenched in a profuse perspiration.

On Monday morning, about four o'clock, he was found on his back in the stall, much agitated, and pushing his legs to and fro with spasmodic vehemence. From this time till about two on Tuesday afternoon, there was no variation in symptoms, except that all progressively increased in violence.

On Tuesday, the twenty-fourth day from the bite, about twelve o'clock, he was seen by the writer. The symptoms, by account of the horse-keeper and others, were intense restlessness and agitation; that he had been secured in the stall by two halters, but during the forenoon had thrown himself backward, so as to induce the horse-keeper to liberate him lest he should strangle himself. Thus set at liberty, and having the range of a large stable to himself, he was perpetually desirous of changing his place or posture, and even galloped its whole length; he had, however, so far the command of himself, as to be kept in one end of the stable, by the sight of the cart-whip, except when exacerbations of the symptoms caused him to break all bounds. Such was the account given about Tuesday noon as above-mentioned; it was then not deemed prudent to go near him, the keeper having reported a disposition to run at those who placed themselves before him, or in his way; of this, however, I saw no appearance.—The stable was tolerably light.

The general restlessness and irritability were intense, causing him perpetually to change his situation, lying down, rising on his feet, rolling on his back from side to side; careless of his positions and actions in such a manner, as to cause an idea, that he must mean to hurt himself, and this in every change of posture. The perspiration had never ceased from Sunday preceding.

When on his feet, he was perpetually attempting to rub the hind part of the thighs against the manger, a symptom attending him from the beginning. When on the ground, his rollings appeared to have reference to the loins, his back being bent so as to throw his weight thereon; after each turn, the penis, though a castrated horse, was pro-

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pelled out of the sheath, at least four or five inches, and ejected a few ounces, perhaps half a pint, of urine with all the vehemence of a squirt; this action, evidently a painful one, and causing great tension for the moment, was observable from the beginning.

Whether on his feet or reclined, he rubbed his nose incessantly against the manger, or amongst the litter, and in the latter case seemed desirous of retaining his nose immersed in it: this was a prominent symptom. After rubbing a while, jerking his head forward with great violence. It was said he had been observed to bite at the manger, but I was at that time out of the stable.

The eyes had a dull glazed appearance, and seemed so devoid of lustre, as to give an idea of his being blind, but that was not the case: he readily understood the motions of the whip.

He laboured under great difficulty of breathing, and frequent cough, both of which appeared to have occasional exacerbations. At these times, his actions broke all control, and became violently extravagant.

A frothy or semi-mucous saliva was observed about the mouth, from which it occasionally dropped without coughing: the cough commonly forced some away.—The breathing resembled the whizzing, without the sonorousness, of croup; the cough was facilitated in its passage by a particular attitude of the body and bend of the neck, so as to give an appearance as if he were desirous it should pass along the windpipe, without scouring it. All these symptoms increased greatly during the above-mentioned exacerbations.

When disposed to lie down, he threw himself at least half the way, as if from impatience, but apparently with difficulty from rigidity of the limbs, or from some internal sensation, or both.

During every exacerbation, the limbs were spasmodically affected; the stricture of the throat was more apparent, the breathing loud, or resembling that of a horse pinched on the windpipe to ascertain the soundness of his lungs. A pail of water being put before him in this state, he presently approached it, put his nose into it, and filled his mouth, without, however, swallowing any; then put his foot into it, and threw it over. There was irritation enough in his appearance to lead one to expect intense thirst. The symptom then, which has been held as of almost exclusive importance in Hydrophobia, was not prominent here, though it obtained in a degree from the beginning.

Though

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Though disposed to actions so extravagant, they appeared rather to resemble such as might arise from intolerable suffering, than the result of madness guided by the will. But his threatening appearance to those who stood before him, and his subjection to the cart-whip, had less the appearance of delirium. His actions on the whole, however, might easily lead an ordinary bystander to give his disease the name of madness, i. e. of furious derangement.

The urgency of the symptoms, the increasing ungovernableness of his actions, the necessity of having the stable cleaned before evening, and the conjectured impossibility of recovery, induced his owner to have him shot, about two in the afternoon, on Tuesday, the twenty-fourth day after he was bitten.

The carcase was examined about twenty-four hours after death, in the presence of Dr. Adams, Mr. Taunton, two of Mr. Taunton's pupils, Mr. Jones, and Mr. Charles Newport, veterinary surgeons, and the writer. Though we had the opinions of the two last named gentlemen, the diseased parts were compared with similar ones taken from two or more other horses, one of which was killed, the other had died of some disease. The opinions of the horse-slaughterers were also attended to, where they could be of use.

The following were the appearances.

The abdomen had become distended with air; the skin still shewing marks of the profuse perspiration.

The blood had hardly coagulated, excepting in the heart, where a firm coagulum was found. It was remarkably black and thin, fluid even to the smaller vessels; and little having been drawn off when he was shot under great muscular exertion, every part exhibited marks of high injection. When exposed to the air it speedily reddened.

Inflammation was found in the mucous membranes of the stomach, windpipe, œsophagus or weasand, bladder, urethra, and back part of the mouth.

No inflammation was discovered in any serous membrane; all were exposed.

The brain healthy, veins on its surface injected; the dura mater of a natural appearance except slightly injected, without inflammation.

The membrane lining the upper part of the mouth, nearest the larynx, highly injected, though but slightly inflamed; and that inflammation seated in the finer capillary vessels prominent on its surface. This inflammation was

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continued, in the same degree, down the œsophagus to its entrance into the stomach, and down the windpipe, to within about six or more inches of its ramifications into the lungs; the œsophagus the least inflamed.

The greater part of the inner surface of the stomach affected with inflammation in various stages of forwardness: from the simple injected, to gangrene—of various colour, from blush red to livid and black, and in one or two points exhibiting incipient sphacelation; in the worst case not affecting the subjacent or muscular coat; no coating of coagulable lymph; the outer surface, as well as that of all the intestines, shewing no marks of disease, except six or seven dark coloured spots in their whole length. The veins, on their surface, injected with blood; on the side of each vein a track of reddened blood, about one-tenth of an inch wide.

The wind-pipe, as before remarked, was but slightly affected with inflammation, but about six inches from its ramifications into the lungs, it became extreme, the appearance being livid and blackish, but no raised or incipient sphacelating points, no coat of coagulating lymph. Two patches of mucus, similar to that which dropped from his mouth, or was coughed up, whilst living, found on its surface.

The kidneys were highly injected, but not inflamed, except that what usually resembles a pale coloured mucus was changed to a straw colour.

The mucous membrane of the bladder inflamed, rather than injected; the natural mucus increased in quantity; its outer surface not affected. The membrane lining the urethra, several inches from the bladder, in a high state of inflammation, but short of gangrene, rather high coloured than livid, not extending to the subjacent muscular coat.

The lungs natural, but high coloured.

The heart sound, injected, but flabby. The blood disposed to coagulate in the cavities; in one, as before remarked, a firm coagulum, the only one found.

The mucous membrane of the nose was not sufficiently affected to excite notice.

The colon and intestinal canal were unaffected on their inner surfaces.

One of the parts on the upper lip, which had been bitten, cut out, and had healed, as before stated, was now cut through in two directions; it exhibited no thickening to the eye, no hardness to the touch, and had the completest

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completest appearance of having healed by the first intention. During the disease, and to the last moment of his life, he had rubbed it against one thing or other with persevering eagerness, particularly during the exacerbations. This symptom had induced his owner, Mr. Townsend, to examine on Saturday evening the inside of his mouth, to discover whether there were any sore or hardness. He found none.

No inflammation of substance, or of the phlegmonous kind, was discovered; every diseased appearance was found in mucous membranes; and of those, except in the intestinal canal and nose, none of the larger ones had escaped; in no case, however, had the inflammation reached or attacked the subjacent coat.

The inflammation was most violent in the stomach, next in the wind-pipe, next in the urethra, next in the bladder. The strictured breathing might be imitated by compressing the throat externally by the hand; the violent inflammation, however, was many inches from the upper end of the neck.

During this examination, we were informed of a horse belonging to Mr. Teanby, builder, Old Street, supposed to be rabid from having been bitten by a dog. On inquiry, it was ascertained that he was bitten in Wormwood Street, probably by the same dog. He had completed twenty-two days, and part of twenty-three, since that time, before he had been much noticed; but the last mentioned day his work was suspended. It was now recollected that his appetite had failed since the twenty-first day. He was seen by the gentlemen above-mentioned about three in the afternoon of the twenty-fifth day.

On viewing him, little was found in his external appearance to notice, except a slight apparent uneasiness; a considerable degree of watchfulness as to surrounding objects, and apparently a disposition to stale frequently; whilst under examination, he voided to the amount of half a pint of urine at one time.

His usual temper was reported to be suspicious and churlish, so that the two former symptoms might be less unnatural to him than would be the case in a gentle horse. He bore the approach of his keeper quietly; suffered water to be splashed into his face without any apparent sensation beyond an ordinary start, and heard it poured from pail to pail without emotion; made attempts to drink without swallowing, or seeming to dread the water, and made many fu-

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tile attempts to eat his hay; his desisting from eating, appeared rather the result of indifference, than of disgust.

The symptoms, compared with those of Mr. Townsend's horse, were so mild, that the writer was in no haste to see him in the early part of the following day. On calling about three in the afternoon he learnt, that in the morning he had become furious and ungovernable, biting the halter and the manger with vehemence, so that his owner had caused him to be shot for fear of farther mischief. He was already sent out of town to be buried, so that there was no opportunity of inspecting the carcase.

It has been already mentioned, that a horse belonging to Mr. Ashenden, was bit on the stand by Bishopsgate church. In about three-quarters of an hour, the bitten part was cut out by Mr. Waugh, farrier, Green Dragon Yard, Hog-lane, Curtain Road, from whom the following account was obtained: The bite was in the inside of the upper lip; it healed sound, without hardness or callus. The horse was low in condition, but whether of a gentle disposition is not ascertained; the symptoms were all mild; he was disposed to lie much; was rather stupid and quiet, and never snatched at any thing. He began to be ill on Tuesday, the 24th day from being bitten; he was then sent from work, weakly, and was recollected to have been off his appetite from Sunday the 22d day. From Wednesday the 24th, his desire to rub his lip was incessant; from the same time or earlier, showed a wish to drink, but never swallowed; breathed moderately; his flanks pinched to his back bone; no frothing at the mouth; no cough; drenched in perspiration from the beginning. He was killed on Saturday morning the 28th day, by repeated strokes on the head with a hammer.

Through the kindness of Mr. Jones, the writer proceeded to see him opened; but from some mistake, the parts were disposed of before he arrived. The wind-pipe and head alone were found, the former of a perfectly natural appearance throughout. The head exhibited marks of injury on the under jaws, as if he had bruised himself, but it is not ascertained that he had done so; the extravasated blood disposed to coagulate, and of a florid red.

The mare belonging to Mr. Crow was sent to the same farrier, Mr. Waugh, on account of an accidental lameness; she was with him when the symptoms first made their appearance. From him, up to Thursday evening, the twenty-sixth day from being bitten, the following account of the

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the symptoms was received. From that time to Saturday morning, the twenty-eighth, from Mr. Crow.

On finding her bitten, Mr. Crow instantly washed the place, one of the nostrils; it bled freely. The mare was, within an hour, dispatched to Mr. Waugh, who finding only a scratch, forthwith applied vitriolic acid as a caustic. On the morning of the twenty-sixth day he observed her unwell, but not greatly so. By request of her owner he gave her the Ormskirk medicine, which she had not had three hours before she began to paw and be uneasy.—She now began to breathe high; had no frothing at the mouth; staled freely previous to that day; afterwards, nothing farther could be learned in that respect; pinched in the flanks; perspired freely; and these symptoms continued to the last.

The eyes glassy, fiery, and red; the vessels considerably injected; began to bite at any thing in her way.

Though she had manifested a disposition so furious, yet she suffered herself to be led quietly to her master's stable on Thursday evening. The ensuing morning she became entirely ungovernable, and continued so as long as she was seen alive; indeed, in such a degree as to prevent all practibility of approach for accurate examination.

She was seen on Friday by Mr. Newington, surgeon, near Spital Square, through a fan-light over the door, and through which he introduced his hand, when she made a spring towards it, but failed, as she commonly did in such attempts, from apparent weakness of the back; shot forth her tongue and champed her teeth incessantly. She sprang forward with fury as often as any one came in sight; but being now, by the efforts of Mr. Crow's assistants, confined in a corner, they were able to offer her water as late as Friday morning and afternoon; she drank a gallon each time. In the afternoon, after drinking, she pawed over the rest with her foot. Eat nearly a peck of oats on Thursday night, and also some hay; a quantity of both were found in the stomach.

It should have been mentioned, that besides being confined in a corner by a gate, she had also a beast rope put round her neck, but without a slip noose. She was known to be alive on Saturday, the twenty-eighth morning, at half past six or seven o'clock: but she made so much noise, that those present were deterred from entering the stable till it was light. At eight she was found dead; but it could not be ascertained whether she might or might not have strangled herself. A slight extension of the inflammation from the internal to the external surface, as hereafter mentioned,

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tioned, of the trachea, might arise from this rope: but that can only be a conjecture.

The carcase was taken to an intelligent slaughterman in Whitechapel the same evening, where, for the alleged reason of preventing or retarding putrefaction, an incision had been made into the abdomen, and its contents drawn through it, were exposed to the air. The weather was frosty, which had apparently produced some effect on the viscera.

The examination was conducted under the inspection of Dr. Adams, Mr. Pettigrew, two other medical gentlemen, and the writer. The stomach was first subjected to inspection, and in it the most obvious appearance was, its inner surface adhering, from the frost or some other cause, to the masticated food, of which a large quantity was found. On turning this out, it stripped off about one half of its inner coat, leaving on the remainder, bounded by a jagged line of demarcation. The stripped surface looked red, but whether the muscular coat was exposed was not ascertained. The anatomy of the horse is not sufficiently known to the writer to enable him to say whether there be a cause for such a jagged line, and partial stripping of its coat, in the natural texture of the stomach; but he recollects an appearance precisely similar in the stomach of a horse which had died suddenly in pasture during the latter end of the year, and which was supposed to have died in consequence thereof; though the examination was not sufficiently accurate or minute to decide whether any other cause were discoverable.

The small intestines were affected in one place, but in no extensive degree, with inflammation of substance, including the peritonæal coat; this was the only inflammation of a serous membrane found, except such portions of the pleura as covered the inflamed bronchial tubes.

No other serous membranes, (and all were exposed to view) exhibited any preternatural appearance. The bladder was inflamed on its inner coat, as near as the writer could judge, in precisely the same way and degree as in Mr. Townsend's horse. The mucous membranes of the urethra inflamed through its length. In the bladder was found a small quantity of a jelly-like fluid. The uterus natural, perhaps flabby in its texture; the vagina natural; the brain healthy, as to its membranes and substance.

The chief seat of the disease was found to be the mucous membrane of the nose, trachea, and bronchia. The inflammation extended from the nasal surface of the cribriforme bone, completely enveloping the septum and turbinate

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binate bones, along the trachea, into every considerable bronchial ramification. The general colour of the inflammation on the interior surfaces or mucous membranes, was green, rather than livid, but partaking of both; and even such portions of the lungs and pleura as had taken it on, along with the subjacent and included bronchial tubes, were of the same colour; the lungs which had not been seized, were of a remarkably healthy appearance. The green livid inflammation of the substance of the lungs, had probably become injected in degree with coagulable lymph, being elastic, and rather firm on pressure; whereas, the healthy lungs were soft, yielding, and spongy as usual.

The injected vessels on the septum narium exhibited an interesting appearance, their larger ramifications being visible and numerous.

In one place, about midway down the trachea, the inflammation had attacked its cartilaginous and external surface; it did not appear to creep through the substance of the cartilage, but to have found its way by the connecting cellular membrane. Whether this might be caused by the halter, is not known; it might run from without, inwards.

The œsophagus was uninflamed, its lining of a pale and dingy colour, which we were informed was natural; the kidneys high coloured. The ureters not examined in this or the other horse.

No one being present to give information as to the situation of the bite, no particular notice was taken of the bitten part, it not being obvious on slight examination of the nose, where it was afterwards known to be. Mr. Jones, however, who saw the parts afterwards, says, the bitten part was thickened. It should have been mentioned, that in Mr. Ashenden's horse, the bitten part was thickened; his disposition to rub his nose incessant.

The last subject to be noticed was the horse belonging to Mr. Gray, the Royston carrier. Respecting him, only the following particulars could be ascertained. On his return homeward, the day on which he was bitten, he took the Puckeridge medicine, being met on the road with it at Hoddesdon.

He made his regular journeys to town, till Saturday, the 28th day, when he was found to be unwell. He, however, proceeded on his way to Hoddesdon, where it was judged prudent to leave him. He was said (for none of those of whom inquiries were made saw him) to be languid, dull, and affected with stupor and pinching-in of the flanks. He drank nearly a pail of water about three or four hours before

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before he died, and was said not to have staled during the complaint. He was suffered to die, which happened on Monday, the thirtieth from the bite, about eleven in the forenoon.

The only striking similarity in these cases, it would seem, is the seat of the disease, viz. the mucous membranes. The individual membranes affected, were not in both the same. In the horse, that of the stomach had suffered inflammation even to gangrene; in the mare no such appearance was found. The former neither eat nor drank, the latter did both; the œsophagus of the former slightly inflamed, of the latter not at all.

The appearances in the mucous membranes of the bladder of both were precisely similar. The necessary difference of structure in their respective urethras, prevented fair comparison; but as an opinion, the inflammation was the most considerable in that of the horse. He was known to suffer violent irritation in micturition; of the mare, no good account could be obtained in that respect.

In the mare, the whole of the mucous membrane from the cribriforme bone to the ends of the larger bronchial ramifications was highly inflamed; in the horse only five or six inches at the bronchial end, and that scarcely entering the ramifications.

The trachea shewn as that of Mr. Ashenden's horse, was perfectly sound its whole length; he was quiet during his complaint; Mr. Townsend's horse was nearly ungovernable, but the mare was furious. Will the comparative violence of the inflammation in their respective tracheas account for the difference?

No serous membrane was affected with inflammation, except where it had passed through; it did not appear, as to itself, to be a seat of the disease.

The incessant rubbing of the bitten parts would appear to demonstrate some connection of the uneasiness there, with the other symptoms; perspiration was so profuse in two of the horses and the mare, as to render it impossible to be overlooked. The brains of both healthy; the liver and spleen of both sound.

It may not be amiss to add a few other remarks to some of the writers of the present day. The coincidence of circumstances is sufficient to prove that the horses were all bitten by the same dog; and the variety of symptoms, as well as of the seat of the disease, in an animal that could not be governed by the imagination, may teach us to account for some varieties which have appeared in the human

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man subject; they at least place the question of the existence of such a disease beyond the sphere of fair scepticism. Inflammation of the mucous membranes is all that has been discovered. This affords but a glimmering towards accounting for the high nervous irritation which always precedes, and seems connected with, the cause of death.

Lastly, the number of subjects, the large scale of the various organs, the opportunity of comparing those which were diseased with similar parts in other animals of the same species, the medium period at which the symptoms appeared in each, and the attention with which every examination was conducted, will, it is hoped, justify the Writer in expressing a wish, that in every future examination, the membranes, mentioned in the account, will not be overlooked, whatever may have been the symptoms during life.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AMONGST the vast variety of obstetrical cases that fall to the lot of some Practitioners, it is a happy circumstance, that but comparatively few are of the *dangerous* kind; and, whenever these occur, it scarcely need be observed, that every effort with which an accurate knowledge of the science furnishes the Practitioner, should be early and invariably adopted, in order to rescue the patient from the impending danger.

Of all the dangerous labors, none, perhaps, requires a more prompt and decisive treatment, than those which are preceded by alarming hæmorrhages; occasioned either by a partial separation of the placenta from the uterus, or by its attachment over the os uteri.

In other cases of difficulty (if not danger), such as arise from unfavorable presentations of the fœtus, or mal-conformation of the pelvis, &c. the Practitioner has leisure to deliberate on the best mode of relieving his patient, without risking any consequences; but, in the *former*, it is generally found that "delays are dangerous;" and the sooner, without perturbation or confusion, an attempt is made to deliver, the greater probability there will be of saving our patient. It

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It has been thought by some, after knowing the nature of the presentation, that if the os uteri was not at all, or but little dilated, the hæmorrhage not considerable, and the pulse good, that by waiting a longer period, the dilatation would gradually increase; and the hand, consequently, be introduced with more facility into the uterus. This has been known to be attended with serious consequences; for it ought to be recollected, that *should* the os uteri be disposed to dilate, with each dilatation a certain quantity of the vital fluid is lost, and thereby the patient so much the more endangered.

It will be readily granted, that an early attempt to dilate, in *some* cases, will be attended with manifest discouragement. The unyielding disposition of the os uteri, after the most patient perseverance on the part of the Practitioner, promises but little success. But what is to be done? The case is urgent, and without delivery, fatal. If but the smallest ground is gained in the attempt by gradually persevering, the delivery, in due time, will be accomplished; and, if undertaken in due time, the patient, for the most part, rescued from danger.

In some few cases it has been said, that the os uteri has been incapable of *any* dilatation whatever; and, that after a proper attempt having been made, it were useless to proceed, as in such a state it *never would* yield.

A deplorable case this, especially when it happens to be of the forementioned description! But, as nothing of this kind ever occurred in *my* practice (and I hope never will), I mention it as the sentiment of a celebrated Teacher in Midwifery, that others may judge of it as they think proper*.

If these cautionary hints may prove useful to the *junior* Practitioners in Midwifery, and tend, in any measure, to the welfare of such patients as are committed to their care, the end of their insertion in your useful Journal will be fully answered.

I am, &c.

H. DAVIES.

Piccadilly, 1809.

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* The Editors know, from the best authority, that cases have occurred of placenta presentations, in which the *os uteri* did not become dilatable in time to save the life of the mother; and they think it the duty of every teacher of Midwifery, to apprise his pupils of the fact.

Obser-

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Observations upon Tetanus; by Mr. J. Howship, *Surgeon.*
In Continuation.

It has been already observed, that in certain points of character, the spasm of tetanus, and that of an epileptic attack, may be considered to bear some resemblance to each other. At the same time it has been pointed out, that in essential circumstances, apparent enough at the commencement, as well as upon the establishment of each of these diseases, they are very distinct in their nature. If this distinction is to be made out in the early progress of these diseases, it will be found to be still more evident and clear, in considering the modes of termination, which are peculiar to each of these complaints.

The epileptic disease, in its first attack, is most usually of very short duration; although, for the period of its continuance, the senses are abolished, the convulsions are generally less intense, than in the subsequent attacks of this complaint.

The recovery from the fit takes place readily, and the mental powers are at once fully re-established; very little, if any, soreness in the muscular parts of the body and limbs is felt; and, during the period of the interval, the various powers, relating both to the corporeal and mental constitution, seem to remain completely unimpaired.

The disease, however, continues to exist, and the fits return after a greater or a less distant period of time has elapsed. A particularly severe fit shall be longer than usual in duration; the convulsive actions of the limbs more violent and unmanageable than common; and, after the cessation of this attack, the patient will be observed to recover his mental powers more slowly than he formerly did. He opens his eyes, and looks about him with a sort of wild curiosity; very expressive of the truth, that he does not recollect either where or who he is, nor in what circumstances he is placed: thus it will, sometimes, be many hours before the memory is perfectly recovered.

Towards the close of the disease, the visible influence produced by the complaint upon the intellect, becomes daily more and more severe. The memory is more frequently suspended, until finally it is abolished; the judgment becomes weakened, and at last this also sinks altogether.

Very rarely it happens that a most violent fit of convulsion is suddenly followed by the fatal event; much more fre-

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frequently the severity of the attack produces extravasation from some of the small vessels, either within the substance of the brain, or upon some part of its membranes. In the latter case, the convulsion gradually subsides into a state of coma, an apoplectic sleep from which the patient does not recover.

From the above it is sufficiently manifest, that although at the commencement of epilepsy the mental powers may be very perfect and clear, yet, for some time preceding the unfortunate termination of this disease, they are in almost every instance totally abolished.

The progress of tetanus, although a disease equally fatal with epilepsy, is yet unattended with that abolition or confused state of intellect, which is uniformly produced by those disorders consequent to a compressed state of the brain.

In tetanus the spasms, from being at first slight, become afterward more severe; and the attacks more permanent, as well as more universal, than they were before. The disease seems to influence progressively the whole of the nervous system; and unless a something, that has been supposed to be a radical strength, exists in the constitution, the complaint eventually proves fatal; for it latterly reaches the organs of respiration and circulation, inducing a state of spasm in the ventricles of the heart. The intellectual powers, however, constantly remain clear throughout; and up to the very moment of the fatal event, reason is still perfect.

The respective lines of distinction that exist between one disease and another, are of the highest importance in practice. Not that there is much probability of epilepsy being mistaken for tetanus; but the important fact is this, that upon a just estimation of the true nature of the symptoms, the treatment and management must depend.

Even the best conclusions, those drawn from practice, are sometimes deceptive. A case of epilepsy has, in some rare instances, when the disease has reached its latter stage, taken on, in some measure, the form and appearances of tetanus, the body and limbs having been variously distorted with a rigid spasm; and these cases of very rare occurrence seem to have introduced an opinion, that the two diseases are, in fact, the same; and that the various forms of tetanus are only so many different species of a particular epileptic paroxysm, the same mode of treatment being necessary and proper in both complaints.

The dangerous and even destructive tendency of such a con-

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conclusion as the above in practice, must be sufficiently clear. How many instances are upon record, of the epileptic fit having brought on one or other variety of paralysis, from which the patient has never recovered? Such an event has never been observed to take place in an attack of tetanus. It may perhaps be objected, that tetanus cannot exhibit the same phenomena with epilepsy, from the wide difference in the length of period assigned to each complaint; although the two diseases may be still very nearly the same. It is unquestionably true, that tetanus always runs a rapid course, when compared with epilepsy; but notwithstanding this, seeing that the symptoms denoting a turgid state of the vessels within the head, or a compressed state of the brain, are so numerous and so well known, can it be supposed that such state can ever subsist in the living body, without in some shape being discerned by an attentive Practitioner, more particularly while the patient has the power of expressing whatever he feels of pain or inconvenience?

In the treatment of the epileptic disease, where the brain has manifestly sustained an injury, either from the formation of disease, or from the effusion of some portion of the circulating fluids within the cavity of the skull, the only useful principle of action suggests the immediate removal of a part of the fluid contents of the head; this first intention being assisted by the adoption of such measures, as may still further be conducive to the same end, by the producing a state of excitement in the absorbents of the brain.

What would such a practice be in a case of tetanus? Would it not be both useless and hurtful? There is some reason to believe, that in the treatment of tetanus, the most flattering prospect of recovery might, in general, be afforded, by the early and free exhibition of opium, assisted by wine and bark. Would such a plan of treatment fail to destroy in any case, in which the brain had already suffered under the oppressive influence of the epileptic disease?

In a case of questionable character, where the epileptic paroxysm might be succeeded by the appearances and spasms peculiar to tetanus, it would certainly be proper to consider and weigh very carefully the prevailing circumstances of the disease; in order that an accurate estimate may be made, and the treatment conducted upon the best principles. In such a case, the plan of cure should be governed by the prevailing disposition of the malady;

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which would certainly incline very manifestly either towards the epileptic character, or to that of tetanus.

Should the case have been originally an epilepsy, and the circumstances of the history such, as to leave no ground for presuming the existence of any organic derangement of structure about the brain, there would be, comparatively, little objection to the adoption of such a system of treatment, as might probably succeed in removing any complaint, approaching closely in its characters to the spasm of tetanus.

The cases that would, with probable safety, admit the adoption of a plan of cure that might succeed, where the spasm is considered to assume the aspect of tetanus, are, mostly those in which the epileptic fit has usually given some description of warning of its approach; either by a sensation of giddiness, or peculiar affection of the head, or a creeping or numbness felt upon some part of the surface in the immediate neighbourhood of the head.

The most favorable case, however, for such treatment, would appear to be one, in which the fit has been preceded by that very curious sensation, the aura epileptica. A very singular affection, generally commencing in the extreme point of some one nerve, and slowly proceeding thence towards the head, generally depriving that particular nerve of its proper energy, and therefore producing a sense of numbness, or torpor, extending along its course, till the impression has reached the brain, when the fit immediately comes on; and after this the irritation is not again felt, until the next following attack of convulsion is about to take place.

There is something in the nature of such an impression as the above, that is, in particular instances, highly curious, and indeed very much involved in mystery. The epilepsy from it springing from the aura epileptica, fairly admits of being considered as a parallel case with tetanus, arising from a wound in an extremity, in which the occasional startings and uneasiness in the part wounded, forewarns the patient of what he is about to suffer. The consequent spasms by which the body is agonised in, such a case, admits of probable explanation, upon the presumption that a remote irritation existing in a part of the body, the impression is conveyed to the sensorium, and the convulsions that follow, only prove the intimate dependence that subsists in every living body, between those structures that are themselves endowed with the power of motion,

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motion, and those others, in which is resident the active principle, by the agency of which motion is produced.

In confirmation of the idea, that an epileptic aura always proceeds from some derangement in the organisation of the part in which it is perceived to arise, it has very generally been detected springing from a situation, in which either wound or bruise has been received: nay, the conviction that it must arise from some material alteration in structure, has been so strong, that it has even urged the Surgeon to plunge his knife through sound integuments, and the thick mass of muscle posterior to the tibia; where, directed by the uniform sensations of the patient, he has found a small hard cartilaginous body, that lay in contact with, and pressed upon, one of the nerves of the leg; the removal of which tumor, by the division of the nerve, was the efficient means of curing the complaint.

It frequently, however, appears, that a close attention to diseases, is apt to unsettle opinions that have very long been received. The aura epileptica, not unfrequently, is found to arise in a part where no visible complaint can be traced, or ever existed. No tenderness to the touch, no indurations, nor change of colour; but even then it might be a probable conjecture, that some derangement in the condition had taken place, although confined to the more secret and minute organization, and therefore, not capable of being detected by the senses. But if these cases are of doubtful explanation, what shall be said to one in which the aura existing in the extremity of a limb, has, without the agency of any visible cause, suddenly shifted its seat, springing the very next day, with equal effect, from a distant and distinct point from that in which it was first perceived?—So curious a phenomenon can, perhaps, only be referred to some cause existing primarily in the very source or centre of the nervous system, some peculiar condition of the brain.

The similarity that may be traced between a case of epilepsy arising from a remote irritation, and a case of tetanus produced by a wound, very naturally suggested the probability, that a certain mode of treatment, that experience had proved to be useful in the one case, might also be adopted with advantage in the other.

The experiment was made, and the result was so far fortunate as to render the case deserving of notice.

In the following case was also ascertained, how far a moderate degree of pressure is capable of restraining the progress of the morbid influence of a diseased impression,

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when passing upwards from the extremity of a nerve towards the brain.

Case of Epilepsy, in which the Recurrence of the Paroxysm was prevented by the Use of Cold Affusion.

Samuel Montgomery, aged 23 years, private in the 9th Regiment of Light Dragoons, when about 19, was first attacked by the disease. He had taken very violent exercise, and was in a profuse perspiration when he sat down to rest himself. When cooled, he felt himself becoming heart-sick and heavy. He went, however, and got into bed, slept very well, and the next morning felt, for the first time, a very singular sensation in the right thumb, "starting, jumping and leaping," the impression from which in a very short time reached the brain, when he became insensible.

In this state he remained some time, and when he came to himself, he found his body and limbs altogether very stiff and sore, as if they had been bruised.

During that day he had as many as nine fits: but afterward the paroxysms became less frequent. For the removal of his complaint, he about this time took some medicines, that produced very free discharges by perspiration. The fits soon after left him, and he had none for three months. The next fit seized him while on the road to a market; this also was preceded by the sensation which he had formerly observed in his right thumb. His companions carried him into a house, and the next morning he applied himself to a priest that lived in the village. The priest forbid his eating meat, and desired him never to enter a church.

For three years after this he was free from the complaint, when he was again attacked while sitting drinking in a canteen, which custom he believed to have been the means of bringing back the disorder. It then commenced as before in the thumb of the right hand, passing gradually upwards, and producing convulsive startings, first in the muscles of the thumb, and then in progression; bringing on precisely the same action in those upon the fore-arm, arm, and shoulder. After this time it returned on the average every three weeks or a month.

While passing the island of Madeira, on his passage to South America, this man was attacked by his old complaint, and had several severe fits. He had generally had his grog regularly since he had been at sea, but on the day he was attacked he had taken none. He had two fits the same afternoon. He had taken the precaution once suggested

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gested to him, of having a tight ligature made round the arm on the affected side, this he had produced by a twisted pocket handkerchief, and he said; he believed that it did in some degree retard the progress of the impression upwards from the thumb, but he never was able to prevent its reaching the head at last, so never escaped a fit by that degree of ligature which he had it in his power to make.

In Porta Praya, upon the island of St. Tiego, one of the Cape de Verds, he felt the same sensation that formerly had been confined to his right thumb, now arising in his left, although only the day before he had had a fit, when the aura commenced from its old point.

Directions had been given that the moment the attendants were apprized of an approaching fit, he should be brought quickly as possible upon deck, to the forecastle of the ship, for the purpose of ascertaining the effect of the cold affusion. He said to his companions that he now felt exactly the same sort of starting and jumping in the thumb of the left hand, that before used to take place on the right side, and that of course he knew he should very quickly have a fit. Upon this intimation he was immediately taken up, his clothes were stript off by some, while others assisted by collecting buckets of salt water from along side, and in this way he had several pails of water dashed over his head and body, before the impression from the nerve in the thumb had reached the head. The promptness and force of the application was such, that it several times deprived him almost of the power of recovering his breath. Between twelve and eighteen full buckets were thrown over him, and the effect was decidedly satisfactory. The impression not only was prevented from reaching the brain, but it was felt no more, and although he had for more than a month before, had a fit almost daily, the complaint did not return upon him for the time that he was upon the passage southward, in the tropical latitudes, nor for the rest of the voyage had he any attack.

His expression, with regard to the effect of the experiment was, that the cold water "startled him" very much; he also observed that he was very much "surprised" by it.

Mill Street, Hanover Square,
December 15, 1809.

(To be continued.)

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

SOME ideas lately occurring to me, on certain parts of the Economy of the Thoracic Viscera, I offer them to your notice, in the most hasty manner; for I know not that I had ever less leisure for preparing a paper of correct and cautious utterance.

It is well known, that the contents of the cranium swell gently under expiration, when the blood has not the most free and open passage through the lungs; that they are diminished under inspiration. While this regular alternation of pressure and its removal, may keep up a gentle and regular intestine motion throughout the sensorium, necessary for supporting its inconceivably exquisite functions, which a mere circulation of fluid could not effect; the whole mass of blood, in passing through the lungs, where it has to undergo important changes, may also be affected to the furtherance of these changes, by the alternation of elongation and shrinking, which all its conducting vessels are subjected to from respiration.

If the changes were, principally, as they are generally considered, only chemical, might not I, in support of the conjecture, just observe how instantaneously a crystallization sometimes takes place, in the laboratory, on the vessel where it is expected getting a trifling shake. Perhaps, however, while the origin of animal heat is, with so much ingenuity, referred chiefly to chemical agency, it may, in fact, principally have its source in that law of physiology, which requires inflammation in the reparation of parts. The reparation of parts is an incessant process throughout the whole animal system.

But to return from the digression.—If functions in the animal economy are accelerated by alternation of extra pressure and its removal on the blood vessels, which may possibly be the case, then, with what inconceivable rapidity must the change which the blood undergoes in its passage through the coronary vessels be effected; must the supplies of nourishment be laid hold of, through all its fibres, by this incessantly acting vital muscle!

Cheselden says, in his Anatomy, "Over the entrance of the auricles, in each ventricle, are placed valves to hinder a return of blood while the heart contracts. Those in the right ventricle are named, Tricuspides; those in the left, Mitrales. One of these last seems to do further service,

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vice, by covering the mouth of the aorta, while the ventricle fills; which suffering none of the blood to pass out of this ventricle into the aorta before the ventricle acts, it will be able to give greater force to the blood than it otherwise might have done, because a greater quantity of blood more fully distending the ventricle, and making the greater resistance, it will be capable of receiving the greater impelled force from the ventricle; and if the blood is no way hindered in the right ventricle from getting into the pulmonary artery, while the ventricle dilates, as it is in the left, the left then must be somewhat bigger than the right, if they both empty themselves in every systole."

The blood also, being impelled with less force into the lungs, at the time of systole, it may be said that they are hereby guarded from too great a continually iterated force, while, from the smallness of the pulmonary system of veins, they are guarded from being charged with too heavy a load.

Boerhaave, in his Institutiones Medicæ, says of the coronary vessels. "*Hæ arteriæ sunt in diastole, dum reliquæ corporis arteriæ in systole constituuntur.*"—"*Hæ venæ inaniuntur, dum reliquæ corporis venæ implentur.*

Perhaps it is necessary, that the coronary artery conveying blood into the substance of the heart, should be guarded against the great impetus of its left ventricle.

"From under two of the semilunar valves of the aorta, which is, ere it leaves the heart, arise two branches (sometimes but one) which are bestowed on the heart, and are called Coronariæ Cordis."—*Cheselden's Anatomy.*

By the systole of the heart, the semilunar valves of the aorta are thrown open. They close up the orifice of the coronary artery, and help to prevent regurgitation from it, while the blood throughout the whole system of vessels, forming principally the substance of the heart, is under excessive pressure. The arterial systole commences at the heart. The valves are thrown down. The ventricles in a state of constriction, permit not the arterial systole to impel blood into their proper arteries; have thrown out the blood, by their constriction, from the coronary veins with rapidity; are holding their arterial blood under such pressure, as (with rapidity) to make it give up whatever nutriment it can afford them, to charge it with what is to be carried off through the right side of the heart to the lungs for removal. The ventricles slowly relaxing, the coronary artery opens, invites, and in a gentle current, receives from

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the never, during life, wholly exhausted aorta, the necessary quantity of blood to cause its own contraction; first at its orifice, then, progressively through its ramifications and into the coronary veins, to be again rapidly squeezed out, on the next systole, to the right auricle of the heart.

Respectfully,

J. W.

Salisbury Court, 21, xij, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Have always been in the habit of considering Medical Practitioners as men of benevolent minds, and acting in general upon liberal principles, worthy of their erudition and science; but, if I mistake not, there is *one* exception to this sentiment to be observed, which I beg leave, thro' the medium of your useful Miscellany, to point out.

It is well understood that most physicians are in the habit of prescribing for patients at their own houses, as well as visiting others abroad. And, whether their patients are engaged with a family apothecary or not, they are sometimes instructed to carry the prescription to a certain druggist's shop (for there are physicians who have their favourite houses) in order to be prepared. It is not for me here to hazard an opinion as to their motives for so doing; but surely, it is not out of place to point out the propriety of inquiring first, if there is a medical man who is employed in the family, and if so, to intrust their prescriptions to his care, in preference to the hackneyed custom of sending them to a common druggist.

Further, in case the patients attended to, are *not* provided with a family attendant, it is very well known to the physicians who constitute the Royal College, that there are apothecaries, residing in various parts of the metropolis, who are furnished with medicines from the first house in the kingdom (Apothecaries' Hall), the genuineness and purity of which are universally acknowledged; yet, strange to tell! an illiterate druggist, who has not erudition enough to construe the prescriptions sent him, nor the medicines in sufficient purity (in the estimation of some) to be confided in, as it respects critical cases, is employed to prepare them.

Nor

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Nor is this the conduct of the higher branches of the profsesion only, for surgeons, also of late years, are become home physicians, and some of them adopt the same plan. How far they infringe on the province of the regular physician in this, I presume not to say; it is enough for me to observe, that many of them have their favourite compounding shops, and the prescriptions must be carried thither, whether they have any previous connection with a medical practitioner or not.

Does not this way of preceeding deviate somewhat from the *liberality* which in general characterizes the medical profession? And, does it not place the druggist in a department not exactly his *own*, when he is employed minutely to prepare medical prescriptions, instead of vending wholesale and retail the articles peculiar to his station? I will only further add, that, if accuracy of judgement, *genuineness* of medicines, &c. be judged of any importance in the preparation of medical prescription, it scarcely needs be mentioned where they are most likely to be combined.

I am, &c.

OBSERVATOR.

Nov. 24, 1800.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN No. 129, there is a paper on Hydrocephalus; the writer hints that every man has a theory, and every man has a system. It would be fortunate if every man's theory and system were of the right kind. There are many theories, almost as many as there are practitioners, as well among what the writer contemptuously calls "Old Women Practitioners," as among the young, fashionable, consequential, affectedly cognoscent practitioners, who pretend to know a great deal more beyond their "bow and ridiculously affected grimace." It does not appear that the writer is more free of theory and system than his brethren. He considers all the diseases of children to be hydrocephalus, and uses much "torturing and twisting to persuade his readers that he has cured many, labouring under that (I believe always) fatal disease." He forms his diagnostic chiefly from the child passing black fæces, and considers every such child to have water in the head. If he had considered the circumstances with more attention, he might have been undeceived. The black stools have no more

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no more connection with water in the head than they have with water in the heel. Such black stools may be seen frequently from infancy to old age, where the liver has been in a state of chronic inflammation, obstruction, or congestion. In such cases, after a week or ten days course of an alterative medicine, such as is commonly given when the disease is discovered; the first symptom of recovery is the appearance of brown or black fæces, and of an unnatural smell. These are what an eminent physician calls "foul bowels," and another distinguishes by the name of "Hydrocephalic stools;" meaning, I suppose, that they are the effects of water contained in the brain! Such stools were brought down by the active purgatives of calomel and jalap; but all the purgatives he gave were incapable of extracting water out of the ventricles of the brain. The bowels were torpid from the deficiency of healthy bile, in consequence of the obstructed state of the biliary system, which was distinctly pointed out, when the black fæces made their appearance.

The writer complains, that the "cap blistering plasters" did not raise vesicles to his satisfaction. Where a blistering plaster is not wanted the vesicles are raised very slowly, but where there is any inflammatory action to be subdued, they rise very soon and give relief. This was probably the case where they raised vesicles slowly; it is possible they were not wanted.

I cannot harbour the idea that the writer means to impose on the credulity of his friends, by persuading them that every child who passes black fæces has water in the head; if he does, he will with the same facility persuade them, if the child recovers, that he has cured hydrocephalus, which, for reasons I will not trouble you with, I am afraid he never did, nor never will do.

Having made these few remarks, I will conclude with examining the result of the writers success in his practice

Case. No.		
1.	No black stools -	died.
2.	Black stools - -	recovered.
3.	Fœtid stools - -	recovered
4.	Fœtid green stools	recovered.
5.	No black stools -	died.
6.	Black stools - -	recovered.
7.	Dark coloured stools	died, head not opened.
8.	Dark brown stools	recovered.
9.	No account of stools	died, head not opened.
10.	No account of stools	died, head contained water and bloody water.

Brown

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Brown Stools, black Fæces.

11. { Jan. 22. Addomen sore to the touch, / 23. Fœtid hard black stools, / 25. Several black stools fœtid, / 26. Stools natural, } Recovered.

There seems an impropriety in calling these black fæces "Hydrocephalic Stools." As in the above eleven cases, all such as had no black stools died, and all such as passed black fæces recovered, except No. 7, which case is of no use, as the head was not examined, consequently no proof of its being hydrocephalus.

I am, &c.

A. FOGO.

Newcastle, Dec. 12, 1809.

Arguments against interfering with Small-Pox Inoculation, from Dr. ADAMS's "Inquiry into the Laws of Epidemics."†

FIRST it is shown, that before Small-pox Inoculation was known, the Faculty considered the disease inevitable once in a person's life.

"The opinion that the small-pox would necessarily occur to every one once during life, is as old as the Arabian physicians. Those who wish to learn the theories of the earliest writers, may find them collected by Diemerbroeck from Avicenna to Willis. I shall content myself with citing the last.

"It is evident that Sydenham, who seems to have fallen into the same error, had been warped by these writers in his theories of fermentation and dispumation.

"Willis's words are, —'Convenit enim homini, *omni, soli, et semel* variolis, aut morbills, affici: si forte quispiam in tota vita immunis degerit, aut alius in hos affectus sæpius inciderit, sunt hæc rara et inusitata naturæ eventa quæ communi observationi minime derogant: quin omnino rarum sit, quod nimirum *cuncti et soli* homines sint variolis

† This work being the production of one of the Editors, no impartial means of bringing it before the Public occurred but by these and the former extracts.

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variolis et morbillis obnoxii, atque *unica plaga* iis absolvi soleant."

He afterwards assigns as the cause of this universal prædisposition to the disease, certain impurities of the blood, *inter prima fœtus rudimenta in utero concepta*; quæ [particulæ] diu delitescunt; postea a *causa evidenti* commotæ, cum sanguine fermentescunt; ipsique *ebullitionem* ac deinde *coagulationem* inducunt; è quibus plurima hujus morbi symptomata oriuntur.'

" *Causa evidens*, quæ hæc semina fermentativa commovet, et sæpissime in actum deducit, triplex assignatur: scilicet *contagium* aliunde susceptum, *dispositio aëris*, ac immodica *sanguinis et humorum perturbatio*.'

" Gentilis and Mercurialis differed from this opinion of the cause of impurities, but still consider small-pox as morbum hæreditarium atque hinc nullum fere hominem ab iis immunem esse posse quid omnes nascuntur ex parentibus hoc vitio contaminatis.

" Fernelius derives the disease à causa quadam cœlesti et occulta cui cum infantes et pueri minus resistant quam adulti, hinc fieri quod illi frequentiores variolis laborent quam hi.

" Sennertus differs from these last writers, without assigning any better cause than the humidity of spring and autumn with vitiated particles of the blood.

" Diemerbroeck shows the folly of this notion of impurities, by inquiring how any person could escape from such an effect, when all must be subjected to the cause. He instances a great number of his relations who had lived to a very advanced age, without suffering the disease; and, lastly, himself, who, on the verge of seventy, after attending thousands without any caution, had escaped. — But this would rather make in favour of Willis's theory, who expressly says, that if perchance an individual should escape during life, or another should fall into the disease more than once, such uncommon events do not invalidate a general law of Nature. Now it is plain, that Diemerbroeck did not ascribe his security to a want of exposure, it could therefore only be accounted for by that peculiarity of constitution which Willis has remarked, as not inconsistent with his theory. This want of susceptibility of small-pox is, I am persuaded, much more rare than is generally suspected. Among the infants inoculated at the hospital, the number is too small to ascribe to any other cause than some temporary affection, which occupies the constitution at the time. Among adults, the number

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number is greater; and here we generally find that the subject has remained with his brothers and sisters or playmates, whilst under small-pox. Under these circumstances, it is probable, an accidental inoculation has taken place, and the disease has passed off so mildly, that the attention to the greater sufferers has absorbed the whole anxiety of the family. But I seem to have forgotten that my only intention was to show, how much the opinion of the necessary universality of the disease was encouraged by the profession. Diemerbroeck, we may see, though he discourages the opinion, does not consider exposure to the contagion, as necessary to induce the disease. It however does him credit, that he professes himself unable to assign any cause whatever. 'Quis enim (he concludes) tantæ rei se veram et perceptibilem rationem daturum promittet? Hæc quippe sunt ex illis arcanis quorum causas nos exacte scirenoluit altissimus Conditor.'—Diemerbroeck de Variolis, p. 275. I do not recollect any writer, before the introduction of inoculation, who proposes any means of escape which human prudence can advise in a populous town."

Secondly, the Author shows, that the disease has not, as is generally urged, increased in fatality since the introduction of that practice.

"The only plausible argument that remains against permitting small-pox inoculation in the metropolis, is, that the number of deaths by that disease has increased since the practice was introduced. Even if this were true, we have shown that the increase has been much more considerable in the other contagions; and Dr. Heberden remarks, that the number of sudden deaths have doubled during the last century. It will easily be seen, that if more children are reared, which the same authority admits; and if fewer die of the diseases of poverty, more must be exposed to those causes of fatality from which no improvement in life can secure us, or which, like apoplexy, are more common in the advanced stages of life. From this we might expect that the number of victims to small-pox would have been in a ratio equal to its greater fatality above the measles; and such would probably have been the case had not inoculation been introduced. Those who estimate the probable number of deaths from small-pox by the probable number who may be exposed to the disease, must be erroneous as far as relates to the metropolis, where all are exposed; and, if we may believe Sydenham, all are infected during an epidemic. The only

calculation

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calculation we can make, is by estimating the number residing in the metropolis, that are susceptible of the disease. In this manner we find Dr. Willan accounting for the progress of the disease in the years 1796, 1797, and 1798. During the first of these years happened the severest epidemic small-pox recorded since 1757. During the second, the number was reduced to 522, which is fewer than at any period since, and for several years before; during the third, the numbers were again high. On this occasion that accurate writer remarks, 'The new subjects for this increased mortality must have been produced by the births within the two years, and by the influx of adult persons from the country, who never had the small-pox, to the amount of several hundreds every year.'

"This last circumstance would be sufficient to account for the increase of deaths by small-pox since inoculation, had such really taken place; because, since the rich have lost their terrors by inoculation, they have been too inattentive in receiving domestics who have not passed thro' the disease. There appears also an inacouracy. The estimate has usually been made by *the proportion of deaths from all diseases*, without sufficiently reflecting that the numbers who formerly died in early infancy, swelled the total of burials, without adding to the real population.—Dr. Heberden, willing to view the question in every light, has given what he calls a coarse statement from an average of about ten years, at the beginning, middle, and end of the 18th century, selecting such years in which the whole number of deaths was nearly the same, viz. about 21,000. By this mode of calculating, he finds the increased mortality by small-pox to be from 1600 in the beginning to 2000 in the middle and end of the century.—This mode is objectionable, because certain years of particular epidemics may produce extraordinary mortality, and may supersede small-pox as an epidemic. Hence, in the succeeding years, a greater number will remain susceptible of small-pox, yet the general mortality may be less. Thus the decade, from 41 to 50 inclusive, was the most fatal in fever, yet the number of deaths by small-pox was particularly low. It appears, therefore, that to make a fair statement where we cannot suppose the population lessened, we ought to take the whole numbers as they are, without regarding the greater or less mortality of particular years, excepting what are called the plague years, none of which happily have occurred during the last century. In distributing the century into three parts,

I shall

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I shall for convenience, select the last 90 years, being more easily divided into three thirties. The first decad is omitted, not only on account of the order which it enables us to maintain, but because the mortality by fevers as well as small-pox and measles was so low, for that early period, as can only be accounted for by a less population.

"According to the proposed division, then, we shall find that there died of small-pox in the thirty years,

From 1711 to 1740 inclusive -	65383
From 1741 to 1770 ditto - -	63308
From 1771 to 1800 ditto - -	57268;

making the number of deaths by small-pox greater in the first thirty years by 2075, than in the second thirty years, during which inoculation had acquired some stability, and greater by 8115 than in the last thirty years, during which inoculation was the established practice of most prudent families.

"At the same time, the mortality by measles has taken a quite different course, the number of deaths in the second period of the same ninety years being greater than in the first by 1781, and the number in the last thirty years exceeding the first by 2018.

"By taking the estimate of these two diseases, we save the necessity of any estimate concerning an increased population, which is very uncertain. For how much soever the population of the town may have increased, we are not able to ascertain how much of this increase is confined to Mary-le-bone and Pancras, which are not included in the bills, nor whether the depopulation by the improvement of London, within the walls, may not equal the increase of the other parishes included within the bills.

"Imperfect as these bills are, whilst we have no other records, it is justifiable to refer to them, and, as Dr. Heberden remarks, taken on a large scale, they are not likely to deceive us much. But it is truly painful to see men, whose intentions are honest, led astray by the artful quotation of single years. In 1804, we are told that vaccination had so far reduced the number of deaths by small-pox, that they amounted to only 622. It might easily be answered, that in 1797, they amounted to only 522. What was the cause of each? That there were fewer inhabitants in London susceptible of the disease in 97, in consequence of a previous epidemic; and in 1804, in consequence

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consequence of the zeal for vaccination. All this is highly in favour of vaccination, but makes nothing towards the extermination of small-pox, which can only be kept under by inoculation or vaccination.

"In the year 1805, it is added by these honest zealots, the number of deaths by small-pox increased from 622 to 1685, in consequence of the difficulties thrown in the way of vaccination. But it is notorious that those difficulties increased during the years 1806, 7, and 8, yet the average number of deaths in those three years has been only 1280, which is less than in any three successive years that can be produced within the last ninety years of the preceding century, or than any single year, not preceded or followed by an epidemic small-pox. During the two first and part of the last of these years, small-pox inoculation increased to such a degree, as to alarm many well intentioned people. Yet part of the previous exemption might be imputed to inoculation, as the deaths by small-pox have increased since that practice was discontined at the hospital. At the same time, I conceive vaccination has had a very great share in decreasing the deaths by small-pox; not so much by what has been done in London, but because during the early zeal in the country, so many were vaccinated who, by this time, have resorted to the metropolis, and if they had not been prevailed on to vaccinate, would probably have arrived susceptible of small-pox."

These passages are selected as the most detached, being thrown into Notes at the end and into the Appendix. They serve as additional proofs of what is advanced in the text; namely, that before inoculation was known, the disease was considered inevitable in the larger towns; and that since the introduction of that practice, the number of victims has lessened in London.

Memoir

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Memoir on the Contagious Disease which visited the Communes of Duhort, Buanes, Bahus, &c. last Year; with a Sketch of that which prevailed in the Hospitals attached to the Grand Army in Spain; and on the Treatment and preservative Regimen most proper to be pursued. By M. Dupin, M. D. Chief Physician to the Military Hospital of St. Sever; and Government Physician for Epidemic Diseases.*

Aliquid semper ad communem utilitatem afferendum.

I Am about to offer an account of the contagious disease which prevailed last year in the communes adjoining my residence, and which generally ended in the death of the persons attacked. I shall add an account of the contagion, which lately broke out in the military hospitals in Spain, and among the inhabitants of the country, which, last, was extremely analogous to the disease in the army. My only wish is to be correct, as to facts, keeping constantly in view the sentiment of the philosopher and physician. "If truth is only a point of honour with the bulk of mankind; with the physician it ought to be peculiarly sacred and inviolable." Finally, I shall succinctly trace from actual observation, and not from hypothesis, the proximate as well as the remote causes of the disease. It may be thought as the epidemic has ceased to exercise its ravages in the communes where I witnessed it, that this memoir is now superfluous. There would be some weight in this objection, if experience had not demonstrated that epidemics, like the above, are apt to return, particularly to us who are in the vicinity of a large army, in which it prevails with more or less severity, and from which we are likely to receive infected individuals. Above all, I wish it to be understood, that I do not write for the sake of my brethren physicians, who are not likely to go wrong, but country surgeons are generally the first called in to patients of the above description, and on the first treatment of the disease the issue frequently depends.

The contagious fever first alluded to in the title of this memoir, chiefly prevailed in the communes of Duhort, Buanes, Bahus, &c.; and admitting that there was a difference in some of the symptoms, as they manifested themselves in the various communes, we ought, nevertheless,

* Journal de Medicine.

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to class the disease, according to the general characteristics it bears; for a treatment which suits one epidemic, is certainly applicable (under certain modifications dictated by circumstances) to all epidemics, bearing the same character in their leading symptoms.

The terror and alarm which never fail to accompany the ravages of epidemic diseases, are among the primary causes of their propagation. The blind prejudice which seizes the vulgar, perverts their understanding, and proves the predisposing cause of the disorder.

It would be very important to show that these diseases have no contagious character, and that it is only terror, prejudice, or negligence, which renders them so fatal. In the country, there exist no precise ideas respecting contagious diseases, which are most frequently complicated, and sometimes disguised under symptoms apparently foreign to them. A long experience in the armies, and in this part of the country, has convinced me that anomalous fevers, commonly called malignant epidemics, as well as almost all acute diseases, generally become unmanageable when we neglect to attack them in their commencement; the only period at which we can effectually restrain their violence, and mitigate their symptoms.

The disease, of which I am to give the history, exhibited in the course of its different stages, singularities and phenomena, which excited my particular attention. I shall confine myself to what I saw and observed in a single family, all the members of which were successively attacked with the most distressing symptoms. Let me previously state what occurred before I was sent for. The wife of Labarthe, called Ann Boueilles, in the commune of Bahus, 55 years of age, went to Buanes in the beginning of January 1808, to attend the husband of her sister, who laboured under the disease then raging in the commune. The brother in law was cured, but his wife, sister to Ann Boueilles, died. Labarthe's wife returned to her family, having absorbed the deleterious poison, was confined to her bed, and communicated the disease previous to her death, which soon happened, to her husband, who was upwards of 60 years old; to her son Peter, aged 30; to her daughter in law, Jane; to her son John, aged 25; to a nephew, who was in the house; and to a shepherd boy, aged between 12 and 13. M. Durrieu, receiver of the taxes at St. Sever, and proprietor of the farm occupied by this unfortunate family, four individuals of which had already received the last sacrament, requested me to visit them.

He

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He described them as abandoned by their relatives and friends, and condemned to inevitable death. I instantly proceeded to the scene of distress, accompanied by M. Latour, the officer of health at Mont Gaillard, who being convinced of the desperate nature of the disease, considered my visit as superfluous.

Having entered the house, I made a large fire: my attention was then directed to the apartments and beds of the patients. I opened all their curtains to admit the fresh air, inundated them with fumes of vinegar, and ordered fomentations of vinegar and water, for the upper and lower extremities, every two hours.

Not having a great stock of pharmaceutical preparations at my command, I prepared a remedy chiefly composed of theriaca and good wine. The father of the family in particular was in the last agonies. I administered the same mixture to all of them, and having called in the neighbours, assured them there was no danger. M. Durieu, on my application, sent me an abundant supply of vinegar and good wine, with some additional attendance; in short, by assiduity night and day, and by administering large quantities of the above medicine for upwards of a month, the whole of the family was restored to health; the confidence of their neighbours returned, their fears were banished, and the commune was preserved from the further ravages of this alarming pestilential malady.

The disease which forms the subject of this memoir, and which has been described by the appellation of the jail fever by Pringle, the malignant putrid fever by Huxham, the malignant catarrhal fever by Eller, and which has been so successfully elucidated by Lind, Monro, and Sydenham, and now generally known by the name of *ataxic fever*, seemed to me to be true acute nervous fever, rarely verminous, and still more rarely complicated with inflammatory diathesis. The primary symptoms, as well as those of the subsequent stages of the disease, exhibit this character in a very decided manner.

Diseases which attack a great number of patients at the same time, and in the same country, and consequently bear the character of epidemics, must depend on an universal and common agent, but accidentally introduced to the inhabitants of this or that district. Now we only find this universal and common agent in our food, or in the air we breathe, two things common and necessary to all mankind. In the present instance, the disease seems to have been in a great measure excited by the physical qualities of the

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air. After a very damp autumn, the succeeding winter renders all the actions of nature torpid; while the piercing cold that prevailed with so much constancy, must have prevented a free perspiration. Experience proves that cold northern blasts become hurtful, when they exceed certain limits. Fear and other mental affections contributed, in addition to material causes, in the developement of the disease. It does not appear that any universally endemic cause existed; diarrhœa did not precede the disease, as we find it does, at this moment, in the hospitals attached to the army of Spain, and among such of the inhabitants as are infected with the same contagion.

Hitherto, a blind empiricism has been the only guide of medical men, in the treatment of a species of disease which has been branded with a malignant character, not on account of the formidable effects it produced, but because these effects were ascribed to certain deleterious principles, the origin and nature of which they never attempted to discover.

Dissections of a great number of dead bodies, and the most profound observations, at length, concurred to throw some light on the inextricable labyrinth of symptoms which attend this species of disease; a method of treatment established on the most solid foundations, has been constantly attended with success, in the hands of all who have resorted to it. Nature must be followed step by step; when we are once acquainted with the chain of facts which occur in practice, they must be compared with each other, and considered with regard to the age and sex; the temperaments of the patients, as well as the climate.

Although the disease varies much in its degrees of intensity, and the rapidity of its periods; although in children and adults of a feeble constitution, these periods were less rapid, and less mortal, than in persons of plethoric habits; although we have seen individuals suddenly attacked through the medium of contagion, and without any apparent prodromus,—we have nevertheless, in general, ascertained three very distinct degrees in this disease.

The first was announced by spontaneous lassitudes; by head-ache, which was the most constant symptom, and generally very violent, but sometimes confined to a painful sensation of heaviness or stupor, with no fixed seat, being sometimes in the lower and at other times in the back or upper part of the head; by want of sleep, or laborious and oppressive slumbers; numbness of the limbs; changes from heat to cold; pulse small, somewhat hard, and

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and unequal; tongue white, dry, and furred; frequently also there were retchings without any sign of swelling or tension of the abdomen; the eyes in some patients were brilliant and fixed, in others dull. The second degree was marked by a continual delirium, mostly of a tranquil kind, but sometimes furious; and by spasmodic twitches, &c. The third degree exhibited subsultus tendinum, as the characteristic symptom; deafness; drowsiness; an extraordinary prostration of strength; small pulse; hiccough; colliquative sweats; petechiæ; tongue black and dry; and lastly, a lengthening of the countenance, which is always a sign of extreme danger, while a contrary appearance is the most certain sign of convalescence; marks of putridity were also present in the third degree.

The general duration of the disease was twenty-one days; after this period the most alarming symptoms ceased. Convalescence was tedious, however, and relapses were frequent. In the highest degree of the fever, two exacerbations were uniformly remarked during the day; one began in the morning, and was at its height at noon; the other began towards evening, and was at its height about midnight; the urine was slimy during the whole of the disease; it was thicker in proportion as the disease was more dangerous; the danger was imminent when in the highest stage of the fever, the urine *suddenly* became clear and limpid; whereas the most unerring sign of an approaching recovery was, when the urine became gradually clearer, and deposited less sediment.

My treatment of the disease chiefly consisted in keeping up and restoring the strength by the general application, in suitable proportion, of volatile stimulants, such as camphor, musk, ether, valerian, Virginian snake root, ammonia, quinquina, and above all, good wine and theriaca; it being requisite, in order to obtain a complete cure, not only to recruit the physical strength, but also to combat the deleterious cause of the disease.

If we consult the most eminent writers on contagious diseases, such as Sydenham, Huxham, Pringle, Lind, and Monro, we find that they considered them under the two following aspects: viz. as depending on miasmata, which floats about in the stomach or cellular texture, or as fixed in these parts, having induced some deep seated putrid injury. It is in the first state of the disease that we have seen the antimonial tartrite of potash used with the greatest efficacy; this remedy seems to us to act less in evacuating the stomach, than in producing an uninterrupted and salu-

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tary perspiration; not only has it the advantage of expelling the injurious matter contained in the stomach, and thus occasionally combating the cause of contagion; but it also rouses the vital energies as a consequence of the action impressed on the whole nervous system. We have also, on the present occasion, in imitation of Sydenham, subjected the patients to a sudorific and antispasmodic treatment. I have seen perspirations, whether caused by nature or by artificial means, bring the diseases to a close at this period. Another remedy, of evident success in the same case, was a blister applied between the shoulders; the delirium, head-ache, and flying pains, which resisted the effects of a vomit, yielded to this application.

In the second state, and when the contagious miasmata had decidedly effected a septic injury, or produced a paroxysm, we have successfully combined antispasmodics with anti-septics. The mixture which succeeded best was the bark, in combination with camphor, serpentaria, valerian, &c. But the remedy which most decidedly completed the cure of these cases, as well as in others, attended by my colleague M. Dufour in the communes of Buanes, Bahus, &c. was topical bleeding by means of leeches; a practice which combines the double advantage of evacuating the part immediately diseased, and relieving the interior of the head, whilst it weakens the patient less than general bleeding. This last method of evacuation, in consequence of the total prostration it occasioned, we found as injurious and dangerous as purgatives, which must be cautiously avoided. With the same view, we applied fomentations of warm water, vinegar, and muriate of soda to the lower extremities, renewing them every two hours until the head was relieved. We did not neglect the use of glisters to keep the belly open.

The cleanliness of the patients, and every thing about them, constantly occupied our attention; the bed curtains were continually open to admit fresh air, and the fumigations prescribed by Guyton de Morveau, were carefully performed.

One of the symptoms, which particularly manifested itself among the military in Spain and the inhabitants who contracted the contagion, was, and still continues to be, a serous diarrhœa, which, when it has become moderate, and seems to have diminished the disease, ought not to be stopped; but when it is too abundant, and visibly weakens the patient, I have successfully administered boluses made of

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of two parts of ipecacuanha and one of opium; the arnica montana in decoction or powder, blisters applied only as rubefacients, without destroying the epidermis. I have also administered wine in large doses at this period, as a strengthener and antiseptic: we know how advantageous this practice was when resorted to by Sir John Pringle. Asclepiades says, that wine in its effects on these diseases disputes pre-eminence with the power of the gods.

In the more advanced stages of the disease, i. e. in the third degree, I increased the dose of the internal remedies; varying and combining them according to circumstances. I employed spirituous aromatic lotions, and had recourse to external stimulants in their greatest possible energy, applying them to almost every part of the body to recall the fleeting spark of life. With a view to diminish the interior heat, I applied vesicatories of cantharides, much more rarely than sinapisms, because the former acting more slowly, often produced bad conditioned ulcers, chiefly when applied to the legs. The old man, who was the husband of Madame Labarthe, presented a striking example of this fact; the wounds in his legs, from the effects of vesicatories applied before I was consulted, became gangrenous and lost all sensation, giving out a fœtid and cadaverous sanies. I ordered scarifications, more or less deep, according to the extent of the gangrene, bathing the wounds with camphorated water; and in proportion as the disease was subdued by the medicines taken internally, the wounds assumed a better appearance, and at length they were cicatrized, attended, however, with a great loss of substance.

My friend, M. Dufour, witnessed a case of this kind, which deserves to be mentioned. A woman, of the name of Anne Phillippe, whom he visited at Duhort, by desire of the sub-prefect, lost all the muscles and cartilages of her nose, which was ulcerated, became gangrenous, and fell off in sphaceli, leaving all the nasal bones exposed. The patient, notwithstanding this unfortunate event, recovered by M. Dufour's skill.

The warm bath is, in my opinion, salutary beyond measure; no application operated so speedily in restoring the strength of the patient, diminishing the rapidity, and re-establishing the equality of the pulse; in allaying spasms, convulsions, delirium, and pains in the lower belly; and, lastly, in assisting a good perspiration, and regularly developing the other secretions. These baths would be still more efficacious, if they were rendered aromatic by the

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addition of camomile flowers, rosemary, lavender, thyme, and sweet marjorum, two ounces of each at a time; the heat of the bath should never exceed 27° or 28° of Reaumur, and the patients ought not to remain in it longer than eight minutes. I have also applied with success a bag of aromatics, boiled in wine, to the region of the stomach.

Let us now attend to the means of preservation. But first let us remark with Hippocrates, that it is very difficult to resist the action of the deleterious causes with which we are surrounded. *Plerumque hominis natura universi potestatem non superat.* Man, like all other organised beings, is under the controul of external objects, with which he is compelled, by his nature, to keep up a connection; he is subject to all the alterations which the elements can effect; as long as he breathes, he is exposed to the influence of the atmosphere.

We may, however, offer a word on the most proper regimen, and on the state of mind best adapted to resist contagion; and afterwards speak of the means to be employed to preserve us from infection.

All sudden and abrupt changes are prejudicial, when an epidemic or contagious disease prevails. We would not advise those, whose only nourishment is milk, suddenly to change it for animal food and spirituous liquors. The discharge of wind upward and downward, which the patients continually void, and the worms which sometimes render the disease more complicated, seem to forbid the use of vegetables. We would wish, therefore, that fruits, such as apples, pears, figs, &c. should be prohibited. The farinæ seem also improper, particularly for children. The tetradynamic plants, and the alliaceæ, such as radishes, water-cresses, turnips, carrots, onions, asparagus, garlic, &c. with a moderate use of animal food and wine, form the most proper nourishment. While this regimen is pursued, all excesses must be avoided, particularly of cold or humidity, which materially predispose the constitution for the disease. The mind ought to be kept calm and tranquil; fear, discontent, and all the enefvating passions, ought to be dismissed by all possible means; and particularly by proper amusements, or a moderate use of good wine, &c.

In order to prevent the propagation of the disease, all communication ought to be interdicted between the infected and the healthy; the hospitals should be removed from the central part of the town, and guards stationed to

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prevent the patients from leaving the hospitals until they are completely well, and until their linen and persons have been fumigated. The sick ought to be kept very clean, and their bed-clothes frequently changed. We have always found the disease more serious, when the patients were deprived of the use of fire. Wagler and Rœderer made a similar observation at Göttingen, and Lind in Haslar Hospital. The stools of the patients must be quickly removed: it would be even prudent to bury them under ground. The linen ought to be soaked for some time in cold water, and afterwards passed through a lye: without this precaution, the evaporation of the water might carry up the contagious miasmata, and thus propagate the disease. The air of the apartment should be frequently renewed; and not satisfying ourselves with the introduction of fresh air, we should diffuse the vapours of oxy-muriatic gas, or any similar substance, in the sick room, taking care not to incommode the breathing of the patient. The furniture and clothes in the apartment ought also to undergo similar fumigations.

[The following report of a work, with the aannexed title, has been presented to the French Institute. It is drawn up by Etienne Sainte Marie, M. D.]

Essay on the Tetanus Rabiensis; or, Enquiry into the Causes of the Accidents which sometimes ensue from the Bites of Animals, said to be Rabid; with some Hints respecting the best Method of preventing or curing these Affections. By M. G. Girard, M. D. of Lyons.

THE author of the work in question endeavours to prove, that the morbid affection commonly called rabies, or hydrophobia, is imperfectly designated by these terms; that hydrophobia is not a disease in itself, but merely a symptom of disease; that this opinion was probably entertained by Hippocrates, who does not in any of his works speak of hydrophobia, although he was perfectly well acquainted, as various passages amply prove, with all the symptoms attributed to the disease so called at present; that the saliva of a rabid animal, when deposited by a bite on the body of another animal, is not the cause of the

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the affections which the latter experiences some time afterwards; that these affections rather belong to the bite itself, which, by disorganising the skin and the subjacent parts, disturbs the circulation of the fluids, causes congestions, and determines irritation in the nerves, spasms, &c.: finally, that rabies, called the hydrophobia, communicated by infection, is frequently nothing else than a traumatic maxillary tetanus; or, to speak a language intelligible to all the world, a spasm of the jaws, produced as the consequence of a wound.

Every fact which can possibly favour these opinions, is cited in the course of the work; the materials being partly collected from the best medical works, and partly furnished by the author from his own practice. Two celebrated physicians of the present day, Dr. Percival, of London [Manchester], and Dr. Rush, of Philadelphia, have declared hydrophobia to be a tetanus. These gentlemen published their opinions nearly at the same period, without being acquainted with the sentiments of each other. With respect to M. Girard, his ideas on the subject were ready for the press, when chance brought in his way a periodical work, in which a mere notice was given of the opinions of Drs. Percival and Rush.

We frequently observe that men, who have been bitten by rabid animals, do not contract hydrophobia; while others are seized with it, when bitten by animals in a healthy state. There is no one who cannot adduce facts in support of the former of these hypotheses. If those in support of the latter are fewer in number, we find several in medical works; and M. Pinel, in his Nosographie Philosophique, has given a very strong one. A man, who was a prey to domestic misfortunes, was bitten by his horse. He was seized with hydrophobia; but the horse, which was carefully watched, did not become rabid. M. Girard cites, in the first place, similar examples, in order to prove that there exists in the disease, called hydrophobia, something which we have not as yet been able to discover. He afterwards enumerates the symptoms peculiar to hydrophobia and to tetanus; demonstrates their analogy, and concludes that the two diseases are completely identical. In both cases, in fact, we observe between the period of the bite and the first developement of the symptoms, a longer or shorter interval; a dull pain in the flesh, and sometimes a swelling in the cicatrix, on the approach of the crisis; a spasmodic irradiation, extending from the wounded part to the neck; spasms in the jaws

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jaws and pharynx; and difficulty, or even absolute incapacity, to swallow: a repugnance to drink, carried, in some instances, to horror; a copious flow of thick saliva; a grinding of the teeth; general or partial convulsions, coming on in paroxysms, agitation, &c.

I shall not follow the author into his train of argument in support of his theory, but content myself with quoting such of his experiments as seem to be the most conclusive and ingenious.

He attempted to inoculate the rabies on a dog, with a lancet impregnated with saliva, furnished by a girl labouring under hydrophobia: the animal received several punctures in the thigh, and yet continued to enjoy good health. Similar experiments, made by M. Huzard, professor in the veterinary school at Alfort, and M. Gibaud, surgeon to the Hotel Dieu of Paris, gave similar results.

M. Gerard next wounded dogs with the bites of cats and other animals; he made in different parts of their bodies deep and irregular wounds, with variously shaped and pointed instruments; and he succeeded in producing grinding of the teeth, difficulty in swallowing, repugnance to food and drink, suffocation, an abundant flow of frothy saliva, i.e. most of the symptoms which are common to rabies and to tetanus.

Although the author establishes his opinion in a manner equally solid and ingenious, his proofs are still by no means satisfactory. It is very true, that rabies and tetanus resemble each other much. I will even go farther and say, that there may be a traumatic rabies; or, to preserve the technical and accurate expressions of the author, a *tetanus rabiensis;* such as is caused by the bites of animals merely in a furious or irritated state. But he must go farther, if he wishes to have a precise notion of true or essential rabies. This dreadful disease is a deprivation of sensibility: it consists in fits of furious mania, with or without delirium; the intervals being spent in profound melancholy. Now we find nothing similar in tetanus. Delirium is rare in this affection; and when it does occur, it is a confusion in the ideas, like what is observed in fevers. It is not, as in rabies, an error almost entirely confined to the taste, appetite, affections, or sentiments; in a word, to that order of movements, which are regulated by sensibility. In my opinion, rabies will be one day classed, in imitation of the ancient method, among cases of insanity; and it will be regarded as a variety of sentimental melancholic mania. M. Pinel, who, in the first edition

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edition of his Nosographie, had placed rabies among spasmodic diseases, has already, in his subsequent editions, restored it to the vesaniæ. The day will, perhaps, soon arrive, when a more perfect nosology will not, separately, classify rabies, mania without delirium, melancholia, low nervous fever, hypochondriasis, hysteria, nostalgia, spleen, or the English disease, &c.—all of them affections, in which it is likely that we shall discover the spinal marrow, the grand intercostal nerve, the solar plexus, and all the organs which obey these central points of sensibility, to be more or less implicated.

M. Girard concludes his work with some very judicious observations on the treatment of tetanus rabiensis: even in the use of the methods indicated as efficacious against rabies, he finds a support to his opinion, as to the nature of the disease. He proves, that if the treatment called local, be more advantageous than any other, it is because, by means of caustics, scarifications, and the methods used to produce an abundant suppuration, we produce a simple, instead of a deep, tortuous, and irregular wound.

The work deserves to be attentively read and considered; it is not one of the empty compilations of an hour; it is a succinct, original, and ingenious treatise on rabies; and, from the novelty of the views it presents, must excite the interest of every medical practitioner. It is composed in that philosophic spirit, which, although long displayed with success in other branches of science, has hitherto, from a deplorable fatality, shed but little of its influence on medical science.

The most important service we can render to the healing art, is to simplify the study of medicine, and to generalise more and more those actions, which may evince the laws of diseases.

M. Girard has attempted this, as far as rabies is concerned; he has cleared the history of this affection from all the absurd stories, which the love of the marvellous, popular belief, the credulity of medical men, or hasty conclusions, had introduced. He subtracts one from the number of our present diseases; but, in the order of spasmodic affections, he has given us an additional species. I fear, lest this system, specious as it is, should mutilate rather than simplify truth; and this doubt I have already ventured to suggest.

If it be clearly ascertained that the saliva of rabid animals cannot communicate rabies, which is perhaps the case, we shall approach hydrophobic patients with more con-

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confidence. We can bestow on them more assiduous, intelligent, and affectionate attendance; we shall have no occasion to fear the effects of their bites; but it is rare that a human being, in this unhappy state, attempts to bite. It cannot be asserted, however, as has lately been said, that patients of this description never bite at all. I was witness to a contrary instance.

Upon the whole, I have no doubt that, in addition to the approbation bestowed on M. Girard's labours by the Institute, he will acquire the esteem and gratitude of every friend to humanity.

Moniteur, Nov. 21, 1809.

On the Use of Carbonate of Potash in Diseases of the Urinary Organs. In a Letter from M. Guyton Morveau *to the Editors of the Annales de Chimie.*

I Have recently met with a Memoir, published in the eleventh volume of the Transactions of the Italian Society of Sciences, wherein M. Mascagni gives an account of an experiment he made on himself with a salt, which I never heard of having been administered internally, at least in such large doses as he mentions. I shall therefore present you with a translation of his paper, accompanied by such observations as have occurred to me.

"Some years previous to 1799, (as Mascagni informs us) I was subject to pains in the lumbar region, and voided from time to time small calculi of an ochry yellow or brick colour. Knowing that gaseous alkaline water had been used with some success, I took it several times, and found myself much better.

"It afterwards occurred to me, that I might obtain even better effects from carbonate of potash. In October 1798, I exposed a concentrated solution of potash to the action of carbonic acid, procured from grapes in a state of fermentation; and in this way I obtained a stock of carbonate of potash, well saturated and crystalized.

"In the months of August and September, 1799, having been compelled to lead a sedentary life, I was seized with violent pains in the kidnies, and I voided a considerable quantity of gravelly concretions, some of which, on account of their weight, might be considered as true calculi. They were reddish and crystalized, and were deposited

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sited at the bottom of the vessel every time that I made water. The shining faces of these calculi could be distinguished through the liquid, which was a little turbid, but nevertheless transparent. I was also subject to a superabundance of acid in the stomach, which was perceived in the mouth.

"I examined my urine, and found a free acid, which declared itself by reddening turnsole paper. This induced me to suppose, that my gravel stones might have been formed by the lithic acid, which was in excess in my urine. These concretions, when well washed and dried on bibulous paper, then soaked in water and placed on turnsole paper, also reddened it. When subjected to the action of distilled water, there was a solution in the proportions known with respect to the lithic acid. When afterwards treated in any other manner, they gave the most unequivocal proofs of the presence of this acid."

Here I must observe, that what M. Mascagni calls lithic acid is the same with the uric acid of Fourcroy and Pearson. There is reason to regret, that M. Mascagni has not stated at greater length, the processes by which he ascertained the nature of this acid. It results, indeed, from the great work of Messrs. Fourcroy and Vauquelin, on human urine, that it contains uric acid, and that the red crystals deposited by it are thus formed. But they ascertained at the same time, that its peculiar acidity is not great, and must contribute but in a very small degree to give the urine its acid character. They have besides, confirmed the observations of Scheele, as to the presence of free phosphoric acid in the same acid. It would have been easy for M. Mascagni to put his conclusion beyond the reach of objection, were it only for the property which the last of these acids has of being fixed in a strong heat, while the former is speedily resolved into its elements.

"Having been thus convinced (continues M. Mascagni) of the nature of this acid, I resolved to make use of carbonate of potash, and to watch the results. The first day I took a whole drachm, one half before breakfast and the other half at bed-time; I had dined at one o'clock. This salt, dissolved in ten ounces of water, had very little taste; it did not cause the least alteration in the stomach nor intestines: but the instant the solution was introduced into the stomach, it occasioned an extrication of carbonic acid, which was felt in the mouth as coming from the œsophagus; a part afterwards passed off by the anus: a proof of the combination of potash with another acid, which must have driven off the carbonic acid. "On

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" On the second day I raised the dose to two drachms; on the third to three; and I continued this last dose for ten days, making the solution in 20 ounces of water."

We find from the above, that in the space of ten days M. Mascagni must have taken internally 29 grammes, or nearly three ounces of carbonate of potash.

" I had remarked, as I have before mentioned, that my urine reddened turnsole paper; I subjected to the same experiment what I now voided, and I perceived from the time I began to use the saline solution, a diminution in the intensity of the colour. On the second day the turnsole paper exhibited almost no change; on the third day there was none at all; a proof that the acid had been saturated. My pains also nearly went off on the third day, and I voided no more calculi with my urine. Afterwards the pains ceased entirely, my urine was less turbid, and I ascertained the presence of potash in excess from the red garnet colour assumed by paper died yellow by turmeric, as well as by other substances, which, when saturated by potash, formed neutral salts.

" I then gave up the use of carbonate of potash, and I was several months without voiding any calculi. Having been since attacked with this disease, I had recourse to the same remedy, and obtained the same effects. I repeated this medico-chemical experiment on every occasion that I felt the same inconvenience, and always with the like success. It is now two years since I voided any calculi, although I no longer make use of carbonate of potash.

" These experiments evidently prove, that potash is introduced into the urinary passages; that it saturates the lithic acid; and that on forming with it a more soluble neutral salt, it opposes the production of concretions, of which calculi like those I have described are formed. There may, without doubt, be concretions of another nature; and it remains to be proved if the same treatment will answer every description of calculi."

The above Memoir of M. Mascagni is terminated by observations on the action which the alkalies exercise in general on all animal concretions, and on the advantages which might result from their use in diseases of the lungs, and other analogous affections. He gives examples of the happy effects of this treatment, particularly in an epidemic disease which had made great ravages in the province of Vienna, and where he succeeded beyond all expectation.

February 27, 1809.

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ON MEDICAL REFORM.

As the word *Reform* implies some defect or degeneracy from original perfection, or else a degree of imperfection incompatible with the present state of human knowledge, it is regarded in the light of an accusation. Such an indication of hostility, or as it is considered, declaration of war, rouses suspicion, examination, and a dread of its tendency, in many who may become the objects of it. Abuse, negligence, incapacity, avarice, all take the alarm; and the outworks of opposition are inspected and put into a state of defence. This is perfectly natural, what always has and will happen. The artillery commonly directed against all reform, is either the sacredness of the subject, the venerable antiquity of the present order of things, the danger of all innovation; and very often we are told that the fabric is too ruinous to admit of repair. Miserable, indeed, would be the state of human affairs, if these obstacles were generally allowed to impede reform or improvement, which is nearly synonimous with it. We know that *religion*, the most sacred of all subjects, has been repeatedly reformed; and *the Reformation*, as it is emphatically called, is the boast of one-third of Europe and America. I might easily show that the constitution of states, the administration of justice, the discipline of navies and armies, with many other subjects of less importance, have often undergone salutary reform; and then proceed to combat the too common apathy about, or frequent opposition against it; but I have, perhaps, digressed too far already. My object is to submit a few observations on the subject of reform, respecting the evidence of the due qualification of persons allowed to practise upon the *health* of his Majesty's subjects.

A Correspondent, in the last number of your Journal, who signs himself "a *licensed physician*," produces very weighty authorities to prove, that the Royal College of Physicians of London has a competent jurisdiction over, or at least a power of licencing, all persons who assume the liberty of adding M. D. to their names. Granting this to be true in *theory*, which I am by no means disposed to dispute, we will consider hereafter, whether any *practical* good results, has resulted, or is ever likely to result, from this authority of the College. But, in this place, I wish to call the attention of your readers and correspondents to the *other* branches of the profession; and to ask, whether

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whether the surgeon-apothecaries, and the chirurgo-obstetro-pharmacopolists, do not also require that some proof of ability and competence should be given, before they are allowed to practise in those respective branches?

I take it for granted that all your readers will confess, that the class of practitioners who arrange themselves under those denominations, are ten times, at least, as numerous as the *Doctors*; and, of course, the guarding his Majesty's subjects against their errors or ignorance, is of ten times greater importance than the regulation of the conduct of those called physicians. This conclusion does by no means rest on the mere *numbers* of that class of medical men, but much more on the circumstances under which they are called upon to decide. Few families, in the first instance, think it necessary to call in a physician; the family apothecary is deemed, and often with good reason, abundantly sufficient for a first decision. This first decision, however, is often of far more importance than all that can afterwards be suggested. The rash adoption, or the ignorant delay, of venesection, is well known to be very frequently fatal in acute diseases. But the most fatal effect of ignorance, arises from mistaking the nature and causes of a disease in the first instance; and the *difficulty*, in a majority of cases, of forming a correct decision in a first visit, is confessed by all writers and practitioners. How necessary, therefore, must it appear, that the persons on whom this diagnosis depends, should be duly qualified to form it? It has always appeared to me, that the most important part of medical reform should be directed to the lowest class of the Faculty; for I can hardly suppose that any person, who has obtained a diploma from a regular university, can be grossly ignorant of the distinctions of diseases. The present advocates for reform, appear to direct their chief attention to these inferior orders. The statutes, therefore, quoted by your correspondent, do only meet a small part of the question; and, consequently, cannot supersede the necessity of the proposed application to parliament.

Let us next consider whether the law, as it now stands, according to the statement of your correspondent, is of any practical utility in securing the due qualification, even of physicians, to whom alone it is applicable. It has hitherto remained a dead letter, because it contains no provision for enforcing its operation. If we had statutes which contained every desirable regulation for all the branches of the practice of medicine, but no practical

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method of applying them, of what use would they be to the public? At present, it seems that any person may indite or inform against any one who practises as a physician, without having been examined and authorised by the president, and certain elects, of the Royal College of London. But who has hitherto been found willing to undertake so ungrateful an office? The name of informer, even when it is to bring acknowledged guilt to punishment, is so odious, that large rewards are hardly sufficient to procure them. In this case, the informer would subject himself to the imputation of envy or malevolence, without a motive to induce him; and hence it is, that none can be found to undertake the task.

This statute then of Henry the Eighth, quoted by your correspondent, is of no practical utility; and if it were, it applies only to a part of the profession, and the part least likely to injure the public through ignorance. For these reasons, therefore, I should approve of the intended application to parliament, if it were only for the means of enforcing the operation of the existing laws; but the object is far more extensive, as the bill will include every part of the profession, and will provide the means of securing its own operation. I can see no reason to conclude, with your correspondent, that by the passing of a comprehensive and operative bill, that "a very salutary existing law would be virtually abolished, and the public left at the mercy of any possessor of a purchased piece of parchment, called a diploma, without the possibility of redress." The new bill, on the contrary, instead of *repealing* any salutary existing law, will rouse it into activity from that sleep in which it has so long lain. I conclude, therefore, that instead of calling forth any "very formidable opposition to the bill from certain powerful public bodies," that those bodies will find "their ancient privileges maintained" and invigorated by it. I should, indeed, have very little expectation of any bill passing both Houses, that attempted to abolish the privileges of public bodies, which "they can *demonstrate to be of public utility.*"

That opposition, however, is to be expected, I cannot doubt; but from a very different quarter. The jealousy of some, the ignorance of others, and perhaps the avarice of a few, may excite opposition; but probably this will operate secretly, by applications and misrepresentations to individual members of parliament. If the bill be properly drawn, I cannot fear any formidable opposition from respectable public bodies.

If

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If such a bill as that above supposed (for I am not a Member of the Lincolnshire Society), should be entertained, and sent to a Committee of the House of Commons, I believe it will be productive of good effects; because such instances of gross ignorance and incapacity will there be produced, as cannot fail to awaken public attention to the importance of the subject. A principle will be recognised, tending to show the great difference between trafficking in health and life, and the other articles of daily consumption. And if the whole object be not immediately attained, an important progress will, at least, be made towards it.

I am, &c.

AN EXTRA LICENTIATE.

Dec. 11, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE extensive circulation which your valuable Journal enjoys in this kingdom, and the universal avidity with which it is consulted, renders it the most proper channel for imparting any information to the medical practitioner, remotely resident from the metropolis. It is with this view I beg leave to communicate to you, a history of the beneficial effects of muriatic acid in fevers. I have profusely exhibited it in the hospital to which I am physician, and the result has been highly important and decisive.

The *antiseptic* and *febrifugous* effects of acids have been well known and acknowledged from the earliest period of medical history; the extent, however, of their powers, when copiously employed, seems to be but recently understood; and the superiority of *muriatic acid* over the rest of this class of medicines is a truth of still later discovery.

In fevers of the *typhoid* type, and in the varieties of *scarlatina*, this medicine appears to be most prominently beneficial; for whilst its antiseptic virtues correct and destroy that tendency to putrescency, so characteristic of these diseases, its tonic powers afford considerable support and vigor to the system; and in the *scarlatina anginosa*, the detergent quality of the acid renders it a remedy still more valuable.

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The phenomena to which the copious exhibition of muriatic acid gives birth, are an immediate change in the strength and number of the arterial pulsations; the weak, frequent, and often intermittent beat, becomes stronger, slower, and more regular; the animal temperature sinks; the thirst is assuaged; the excretions become more regular and healthy, and the increased vigor of the system is indicated by the feelings expressed by the patient, and a character and air of liveliness, which the face and actions assume. In order, however, to insure results so beneficial and immediate, the muriatic acid must be exhibited in very large doses. I generally direct two drachms to be diluted with a quart of barley-water, and sweetened with honey, as the proper quantity for twenty-four hours: previous to its exhibition, the bowels should be always evacuated by a saline purge; for I think I have more than once observed, that where it was neglected, or only partially performed, the febrile symptoms have subsided with greater reluctance, and the *specific* powers of the acid have at first appeared equivocal. Its action on the bowels is dissimilar to that of other acids; it often represses diarrhœa by correcting the putrescent diathesis, which should be considered as the principal cause of *diarrhœa* in fevers.

To illustrate the truth of these effects, I have subjoined a few cases:—

Case I. *Scarlatina Anginosa.*

Elizabeth Garret, æt. 29, was admitted an in-patient of the Westminster-Hospital, on the 13th of July: it was the 4th day of fever, and the scarlet eruption was extremely vivid. She complained of great prostration of strength, thirst, head-ache; her deglutition was painful and distressing; her tongue was greatly furred; the animal temperature preternaturally exalted; and the pulse 136, with a weak beat. I immediately ordered her a purging-draft, composed of an *infusion of senna*, with *tartrate of potash*; after which I directed the exhibition of *muriatic acid*, in the proportion and manner above described. On the morning of the 14th, I found the pain of her head much relieved, the tongue less loaded, the thirst assuaged, the deglutition easier, and the pulse reduced to 128. In the evening of this day, all the febrile symptoms had still farther subsided, and the pulse was only 112. On the 16th, her throat was perfectly well; and, on the 18th, I found her

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her destitute of every febrile symptom, her pulse being 84. I then ordered a decoction of the bark, which, with the assistance of change of air, soon re-established her health.

Case II. *Scarlatina Anginosa.*

Maria Holloway, æt. 9, was admitted into the Westminster-Hospital, on the 16th of July: she was suffering with every symptom of "*scarlatina anginosa.*" Her pulse was intermittent, and too frequent to be counted. I immediately directed the exhibition of muriatic acid, having first prescribed a saline evacuant. Her throat, in six hours, became much cleaner; the pulse was full, regular, and 130. In the course of four days, the febrile symptoms had subsided; her pulse having fallen, by regular and successive gradations, from 130 to 86 beats.

Case III. *Typhus,*

Ann Thompson, æt. 36, had been laboring under the most aggravated symptoms of typhus fever, when I saw her in a wretched and filthy apartment, in the closest part of Westminster. The weather was extremely warm; and every collateral circumstance induced me to believe that the hand of Death could not be averted, even by the most judicious and powerful interposition of the medical art. Her pulse could be scarcely felt; a *low muttering* delirium, with cold extremities, all argued the dejected state to which the vital energy of the body was reduced. I directed the room to be well ventilated, and prescribed, as in the former cases, a saline purge; after which, a quart of diluted acid was prepared for her common beverage. In less than twenty-four hours, her pulse became more distinct; the delirium appeared less continued, and her feet grew warm. On the following day, I ordered a pint of port wine to be given, and insisted upon the steady use of the acid. In a few days her pulse was 120, much stronger and regular; her tongue was less black, and every febrile symptom had decreased. By a rigid adherence to the copious exhibition of the acid, the tongue became perfectly clean: I then administered the bark, and soon had the satisfaction of seeing my patient rapidly recovering from the debilitated state, in which so malignant a fever had necessarily left her.

Mr. Sutherland, to whom I acknowledge myself indebted for much practical information on this subject, has

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cured some hundred patients of "*typhus*" and "*scarlatina*," in St. Margaret's workhouse, by means of a copious exhibition of muriatic acid, in which no wine was administered.

I remain, &c.

JOHN AYRTON PARIS.

Westminster, Dec. 7, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

LATE in the evening of the 31st of October, I was requested to visit Mr. A. of this city, who was seized with a violent pain in the region of his liver: the above was the message of the servant. This gentleman had been some time in a warm climate, and had suffered much from a liver complaint; and, since his return, very frequently endured severe cramp-like pains from that cause, which very naturally led him to believe, that the present pain was of the same nature with the past, and caused by the same means. In order to ease this uneasiness, he took liberally of brandy, as he always found it give him instantaneous relief: but, on this occasion, he was disappointed. As the pain increased, it alarmed his wife; and, in consequence, I was applied to. When I first saw him, he complained of a violent acute pain on the right side of his bowels, which increased and diminished by fits; but had left that side, he said, since he drank the brandy, and gone to the left; and, at times, the pain appeared to occupy the whole abdomen. I could gain no satisfactory information when his bowels were evacuated; but I knew they were generally constipated, which naturally arose from the imperfect action of the liver, and the bile getting access to the stomach, instead of finding its way into the intestines by its own common duct. His pulse was small, hard, and frequent, 120 in a minute. Considering that there was obstruction — though no particular evidence being present — calomel and cathartic extract were given, with the view of acting smartly on the bowels; and a considerable quantity of blood taken from the arm—warm fomentations to the whole abdomen. Notwithstanding this treatment, the pain increased with considerable

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siderable tension, especially on that part corresponding with the sigmoid flexure of the colon. A cathartic injection was thrown per anum; and a cathartic mixture, composed of infus. sennæ ℥vß; tinct. sennæ ℥ß; magnes. sulphas ℥j. Two spoonfuls every hour were ordered, till evacuations should be produced; but these remedies only served to aggravate the disease. His strength began to fail, and profuse perspiration poured from every pore. In this state I felt satisfied he could not long remain alive, therefore further advice was called in; and Dr. Murray, an able physician of this city, did me the honour to say, that I had pursued every step that could be taken, which must be continued, till the desired end of removing the constipation was effected. All the means of resolution were persisted in with unabated zeal, but all to no purpose; as the disease baffled every endeavour which judgment or prudence could suggest; and we were witnesses to the defeat of all our projects, by the untimely fate of our patient, who was cut off in less than twenty-four hours from the first attack.

Appearances on Dissection.

After making an incision through the skin and cellular membrane, and clearing away the abdominal muscles, the first morbid appearance presenting itself was slight peritoneal inflammation, particularly on the left side, the seat of the pain. The peritoneum being divided, all present were struck with the brilliant appearance (if I may be allowed the expression) the whole surface of the intestines presented, of a fine crimson colour; but the transverse arch of the colon, the sigmoid flexure, and that portion of the ileum terminating in the caput coli, bore strong marks of violent inflammation; as they were most particularly red, and some of the vessels distended, and very large. A considerable quantity of coagulable lymph was thrown out upon these parts so highly inflamed, with here and there a few spots of extravasated blood; which was chiefly confined to about three inches of the sigmoid flexure of the colon. The inferior portion of the duodenum contained a considerable quantity of indurated matter; the rectum, also, was full of hard fæces; but no other part of the intestines. The cavity of the abdomen contained about three pints of a yellow limpid fluid; the liver bore evident marks of disease, being very dark, of a deep chocolate colour, firm in texture, and much enlarged.

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The remaining abdominal viscera were all natural; the stomach empty, and externally exhibited no morbid appearance. The vesica fellis was distended with gall; and the urinary bladder, by some accident, was ruptured: consequently, had not an opportunity of examining it. As this gentleman had no thoracic complaint, we did not conceive it necessary to open the chest.

Remarks.

The objects most worthy notice were: 1. The sudden attack of pain, and the transition of that pain from the right to the left side. 2. The rapid progress and extent of inflammation; and, 3. The nature of the obstruction.

When I reflect that my patient considered himself as well as usual when at supper with his family, and in a moment to be seized with such sudden violent pain, and that pain to shift to the opposite side, and produce such active inflammation as to destroy life, at first sight appears strange; but when I reflect also, that this gentleman laboured under liver complaint, and suffered frequent attacks of violent pain, which he never failed to relieve with spirits, and that his bowels were always in a confined state, wonder ceases. I conceive the first pain that he felt was in the pylorus, probably caused by the increased pressure made by a distended stomach, upon the already distended and obstructed duodenum. This pain was relieved by the spirits which he took liberally; and caused the morbid action to be determined at a greater distance from the obstruction.

2. The rapid progress made by the inflammation, and its extensive influence, may, in a measure, be satisfactorily accounted for. I conceive the habit was saturated with inflammatory materials, and only wanted a principal agent, such as partial obstruction, &c. to commence the fatal work; in which I am more confirmed, by the appearance of the liver carrying its own evidence, of having been acted upon by the stimulus of ardent spirits.

3. The nature of the obstruction certainly was no more than a secondary cause of difficulty; this is sufficiently clear, I think, from the stomach not sympathising with the general inflammatory action, as it kept every thing upon it which was offered. I am of opinion, that the reason why none of the very active means employed, did not pass the alimentary canal, was, that the violence of the inflammatory action prevented the natural peristaltic motion

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motion of the intestines. If we do not admit this, and if the obstruction in the duodenum was the cause of all the difficulty, would not my patient have felt constant pain in that part; and would not the stomach have sympathised with, and rejected every remedy offered to remove that obstruction: but we find the reverse of the above to have taken place. As the pain being relieved, which was very evidently about the situation of the obstruction, and that pain attacking the sigmoid flexure of the colon, a considerable distance from the duodenum, which explains why the stomach remained so quiet, even until death; which leaves no doubt on my mind, as to the nature of the disease and cause of dissolution, viz. violent and extensive inflammation, excited by the constant use of ardent spirits. I am, &c.

G. F. EDWARDS,
Member of the Royal College of Surgeons, &c. London.

Bath, Dec. 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

A Singular morbid appearance of the crystaline cornea falling under my care, induced me to make a drawing, which delineates the disease as accurately as the inflamed state of the eye would permit; shewing that it is possible, in a short time, for that part of the organ to be destroyed by ulceration, — I have herewith transmitted the same, with the history of the case, for insertion in your valuable Journal.

Mrs. F. whose occupation is that of nursing females after their accouchement, was seized with sensations like dust or other extraneous substances in her left eye, which were soon followed by considerable pain, heat, and inflammation, with a discharge of matter, but in no material quantity. These symptoms increased, till at length the eye became so painful, as to oblige her to quit the situation she then held, and return home. At the end of five days from the commencement of the attack, she experienced darting pains through the head and globe of the eye, with swelling, tension, and a sense of enlarged feel.

Every

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Every thing prescribed by her friends and neighbours was tried without success, which determined her to get other advice. Unfortunately, she applied to a person whose knowledge of the eye and whose medical skill were not any ways superior to those already consulted. A quantity of medicines had been taken, but no remedy applied to the affected part, consequently the disease made rapid strides, and proved to this poor woman that she had been trifled with. As she found something escape from her eye like jelly, it alarmed her, and she applied to me.

On examination, the first object which caught my attention was the iris protruding through an aperture in the crystaline cornea, evidently caused by ulceration, produced in all probability by continued and neglected inflammation. The tunica sclerotica and conjunctiva were highly inflamed; and by reference to the drawing, blood-vessels may be seen running into the cornea, a triangular portion of which was quite opake, and bore marks of ulceration through its whole substance. The pupil was contracted towards this opacity, and was scarcely sensible to the glare of a strong light. The remaining portion of the cornea was in a state of inflammation, of a red brown colour. The aqueous humour had been discharged some days previous to the vitreous, evidently proving that as the ulceration proceeded, the opening in the cornea became larger; so large, as to permit the escape of a part of the vitreous humour; but I could not ascertain that the crystaline had been forced out by the action of the muscles, because if this had been the case, my patient could not have discovered light, and the membranes would have sunk to the bottom of the orbit, and no art could have restored them; but this glare was only such in proportion to the quantity of humours that had escaped; and I am of opinion, that only a small part of the vitreous humour had been forced out.

In this state I found the poor woman, enduring excruciating pains in her head, violent inflammation of the coat of the eye, loss of sleep, great heat and thirst, accompanied with a white dry tongue, and pulse 120 in a minute. Leeches were applied to the temple, and a few ounces of blood taken from the arm; warm fomentations of decoct. pap. alb. constantly applied; a cathartic purge, and small doses of opium after the bowels were evacuated. Some of the large turgid blood vessels I divided with scissars; and in two days this treatment was the means of giving very considerable relief; the inflammation abated, the

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the discharge lessened, the pain in a great measure ceased, sleep returned, and fever diminished. The same plan was persisted in, and a collyrium, composed of Aq. ammon. a. ʒij. aq. rosæ ʒjß. extr. Saturni gtt. ij. tinct. opii vin. gtt. xv. was applied to the inflamed surface by means of a tea spoon. This collyrium induced the vessels to contract to their natural size, and by its anodyne and cooling properties gave very considerable relief, so much so, that she wished to apply it oftener than necessary. In a few days the above was changed for the subsequent. ℞. Aq. zinci. vit. e camph. ʒij. aq. flor. samb. ʒij. misce; and by steadily pursuing it with all the other plans of depletion, I am happy to say that my patient has regained more than reasonably might have been expected.

I am aware that it may be advanced by some, that the cornea burst from over distention, effected by effused matter within the cavity of the eye, or by some other disease, such as hydrophthalmia, staphyloma, &c. This I shall deny as being the fact, because evident marks of ulceration acting externally are now visible; and for this obvious reason, viz. that the aqueous humour escaped some days previous to the vitreous, through one or more perforations made by the matter of ulcer. It appears from the whole, that inflammation was the first cause, which was rapidly succeeded by ulceration and destruction of a portion of the cornea. The inflammatory action effected, no doubt, the whole of the membranes, and destroyed the sensibility of the retina, which was one cause of the contraction of the pupil.*

I am, &c.

G. F. EDWARDS,

Member of the Royal College of Surgeons, London.

Bath, Dec. 12, 1809.

Account of a diseased Testicle, successfully removed at an advanced Stage; by Mr. JOHN TAUNTON, Surgeon to the City and Finsbury Dispensaries, &c.

S. S. æt. 35, applied to me for advice June 9, 1809. He had perceived a small swelling at the bottom of the scrotum about twenty months previous to my seeing him; this

* A coloured engraving of this case will be given in a future Number of this Volume.

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this increased gradually, but was not attended with pain till last winter, when the cold affected it considerably. The tumour was of a pyriform figure, having a smooth surface, elastic, and appearing to contain a fluid. The spermatic cord, where it entered the ring, was perfectly free from disease, but the integuments covering the tumour were much inflamed and very painful. He was of a spare habit of body. A fomentation of poppies was directed, with internal remedies varied according to circumstances.

June 10. I proposed puncturing the tumour with a view to ascertain the state of the testicle, but under the full impression that castration would be necessary. On introducing the trocar, only about half a table spoonful of a brownish glutinous liquid passed the canula. This operation did not give more pain than was occasioned by the increased sensibility of the integuments. The remedies were continued, with the external use of aq. litharg. acet. comp.

11th. This lotion had procured much more ease than the poppy fomentation, by removing the local inflammation. In consultation with Mr. Bartlett, it was now agreed that castration was the only remedy. This was performed by placing the patient on a table, and including in the incision a large portion of integuments on the anterior and inferior part of the tumour. The external pudendal artery was the only vessel which required to be tied till the whole was removed. The spermatic process was tied by separating the vas differens, and passing very firmly round the remaining part a ligature, which did not produce much pain, nor was any felt on dividing it. About eight vessels required to be taken up, and these principally from the septum scroti. The operation occupied much time, on account of the number of vessels taken up, and also from the great danger of wounding the skin and septum scroti in so extensive a dissection. A great quantity of blood was lost during the operation, but the pulse remained strong and regular, not exceeding 80 in the minute. The wound was dressed with four sutures, lint, and adhesive plaster. The patient bore the operation well.

At 3 h. P. M. four hours after the operation, the pulse was 120, weak, and irregular; the countenance fallen; he complained of sickness, and smarting pains in the part. Much blood had been lost, but the hæmorrhage was apparently stopped. He could not turn on the side; and lying on his back distressed him much. From the great debility

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bility I did not think proper to change the position of his body, but ordered cloths, wet with the aqua litharg. acet. comp. to be applied over the dressing to the scrotum.

At 7 P. M. pulse 130; face and lips pale from the loss of blood; complained much of sickness; the lotion had eased the pain. On removing the cloths and coagulum, it appeared there had been a trifling hæmorrhage since the last visit, but which was now completely stopped. — ℞. Aq. menth. sat. aq. ammon. acet. aa. cochl. duo sextis horis sumenda. Lotion repeated.

June 12. At 5 h. A. M. the countenance was much improved; pulse 100, and stronger; he complained of having had but little rest during the night, and that the medicine produced sickness. He now took an infusion of cascarilla with nitrous acid, and the lotion repeated.

4 P. M. Much better; pulse 94; free from pain, making water easily, but no alvine evacuation. The wound looked well at the upper part, where the lint was removed; the lotion contributed greatly to his ease; he had obtained some sleep; was in a gentle perspiration; and the medicine agreed with the stomach.

The tumour weighed upwards of three pounds; there was contained in the tunica vaginalis, at the upper part, about six ounces of a straw-coloured fluid, which coagulated on the application of heat; the bulk of the tumour was formed by an enlargement of the body of the testicle, which was composed of a reddish brown substance of a soft pulp-like structure, much resembling the fungus hematoides of Hay. The centre of the testicle was most pulpy, but nothing appeared like hydatids or separate cysts; neither was it produced by an effusion of blood, but evidently a morbid growth of the part. In this case, the water contained in the tunica vaginalis, at the upper part, gave an elastic feel and an undulating motion to every part of the tumour.

June 13. Some smarting pain had been experienced in the wound, in consequence of the lotion being omitted from the inattention of the patient or those about him; but the wound looked well; pulse 90, which, on rising up in bed, increased suddenly to 120, rather irregular, but moderately full. He had two evacuations by stool on the preceding evening; the medicine agreed with the stomach, and he was in every respect going on well.

14. Felt somewhat depressed, but easy with the application of the lotion to the part; pulse 80, but on rising up

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up in bed increased to about 96. The wound looked well, and the appetite began to return. Medicine repeated.

June 15 and 16. Pulse 72; free from pain; one of the ligatures was removed, and the wound dressed with the ung. hydr. nitrico-oxydi. Medicine repeated.

17, 18, 19. Another ligature was removed; suppuration had taken place to a small extent upon the chord at the part where it was tied. The patient much stronger, and occasionally sat up in bed. Medicine repeated.

20 and 21. Rather low; removed all the ligatures except the one on the chord. Medicine repeated.

22, 23. Removed the ligature on the chord, and carried a strap of adhesive plaster around the scrotum to keep the parts in contact. The dressings were applied over the whole.

29. The dressings continued, and the patient walked out daily.

He is at this time in a perfect state of health, and follows his accustomed employment.

On the first examination of this patient, the integuments had a livid appearance, similar to that which precedes gangrene; so much so, that one professional gentleman, to whom he applied the day before, considered it a lost case, and would not attend him. This local inflammation was relieved more by cold than by warm applications, which were first used. The subsequent pain and inflammation of the wound were invariably mitigated to an extent I have rarely seen by the solution of lead.

The extreme debility of this patient at the time I first visited him, rendered the issue of the operation doubtful; but as the only mode of affording him even a chance of life, it was preferred with his full approbation. Altho' I should certainly prefer operating at an early period of the disease, in those cases where an operation is absolutely necessary, yet I think the patient ought not to be deserted even at a very late period, from the apprehension of failure and bringing the operation into disrepute. The above conclusion is fully warranted by the result of some cases formerly published.

Greville Street, Hatton Garden, Nov. 22, 1809.

ON

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ON MEDICAL REFORM.

I HAVE been an attentive, and not an unconcerned Observer, of what had been written and attempted on Medical Reform, long before the question was first agitated by the Lincolnshire Benevolent Medical Society. Not that I should have now taken up my pen, had I not perceived that the object of the Reformers, and proceedings adopted, have been completely mistaken in several instances by one Writer, in the preceding Number of the Journal, who calls himself quaintly, and to me I confess unintelligibly, "An Enemy to the Quackery of Corporate Bodies."

In Dr. Harrison's last circular Letter, he remarks, that "Quacks, aware of their ignorance and misdeeds, artfully conceal them, by compounding and dipensing their own drugs." Now, because Apothecaries happen to dispense medicine, this Writer infers, that an useful and highly meritorious class of Practitioners are intended to be confounded, and of course stigmatised, in common with empirical Pretenders. Had he taken the trouble to read the whole Letter, and compare it with the other circular Addresses, he would have seen that nothing of the kind was ever meant. The regular establishment, viz. Physicians, Surgeons, Apothecaries, and Men-Midwives, are every-where carefully distinguished from Quacks, or uneducated Pretenders. I may further observe, that during Dr. Harrison's late visit to London, I had an opportunity of examining the Bill; and I can venture to assure the Profession, that no *practical* restraints are laid upon Apothecaries, or other Members of the Faculty. The Bill requires a suitable education for the different orders of the Profession, but does not attempt to limit their exertions. In small towns, and among the poor, Apothecaries must continue to undertake every branch of the healing-art; or the sick will, in many cases, be wholly deprived of medical aid. Any reform, which professes to confine the practice of the different orders of the Profession by legal enactments, would, in my opinion, be highly injurious to the community. I am happy, therefore, in being able to assert, of my own knowledge, that nothing of the kind is attempted in the Bill; and I think the ingenious and learned Editors of the Medical and Physical Journal can confirm my statement; since, unless I am misinformed, the Bill has been submitted to their consideration, in common

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mon with many others. The same Writer does not hesitate to assert, that the attainments of the Regular Faculty are much greater, and the number of empirical pretenders much less, than formerly. I am ready to admit that Medical Men, of great learning and superior professional endowments, are to be met with in all parts of the empire; but I am far from believing that the great body of the Faculty are as well instructed in classical or medical learning, as their immediate predecessors. Nor do I think that their emoluments enable them to maintain their former style of living, or that they are now placed by others in their proper rank. The remark of Viator is, I believe, strictly true; that Physicians are now placed on the list of precedence below Naval Lieutenants. Formerly Doctors, in all the Faculties, held a distinguished and an equal situation. In Divinity and Law, the old rank is carefully preserved. Why has a change, so degrading to the medical character, been suffered by the Fraternity; for as one class sinks, the others must proportionally descend? It is owing, as I conceive, to the disorganised state of the Profession; which, by suffering half-educated and illiterate Practisers to exercise the healing-art, has forfeited the pretensions of Medical Men to the first rank in human estimation.

Not a century ago Physicians, and Surgeon-Apothecaries, stood on an equality with Barristers and Attornies. But while Lawyers, in consequence of judicious regulations, have elevated their Members into Prime-Ministers, Chancellors of Universities, Senators, and Personages, of importance every-where—Medical Men, for want of union, have sunk in an equal degree. I have lived long enough in the world to mix with two generations; and such is the opinion I have formed from personal observation. With respect to Quacks, he asserts, that few of them are to be found out of London. Where this Gentleman has gained his information, is unknown to me. We are certainly completely at variance on this point. It has been my lot to visit many parts of the empire; and I have been led to believe, that this mischievous class is not only very abundant in country towns and villages, but that they are increasing in numbers and audacity. It has been stated on calculation, by the Lincolnshire Benevolent Medical Society, that Quacks exceed the regular Faculty, in the proportion of nine to one *. Whether the same inequality obtains

* See Dr. Harrison's Essay on the Ineffective State of Medical Practice.

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obtains in other counties, may be doubtful. The question for consideration is simply, Whether it be for the interest of mankind, that Quacks should be tolerated or suppressed? And, 2dly, Whether the regular establishment ought to be subjected to rule, or left, as formerly, to the caprice of individuals.

The British is, I believe, the only Government in Europe, where Medical Men are suffered to enter upon their functions, without being previously licensed. It may be answered, that since the British are greatly superior to the continental Faculty, it will be to the interest of society to leave them to themselves. Admitting this boasted superiority, which is, however, very questionable, does it follow that they would not become more excellent, by obliging them to be suitably educated and examined.

The advantages obtained in the other learned Faculties, by regulations lately imposed, are to me a convincing proof, that, by similar means, the curative art would be greatly improved to the Profession and their employers. Under this impression, I am desirous to see the Bill carried into effect; and hope, before the winter business commences, that the pecuniary subscriptions will be sufficiently liberal, to meet the heavy expenses in Parliament.

Dr. Harrison is, I perceive, called upon by the same Writer, to publish the whole Bill for general information. This Gentleman is not perhaps aware, that such proceeding is unparliamentary, and would not be approved in that August Assembly.

After the second reading in the House of Commons, all Bills are ordered to be printed for distribution; and, at a future period, are taken into consideration by a Committee. In this interval, the Faculty will have time to examine the different parts, and to propose alterations by means of their representatives. I trust a copy of the Bill will be published in the Medical and Physical Journal, for general information.

The charge of Sir James Mansfield, and the legal opinion of Mr. Sergeant Williams, are most important documents, deserving the particular attention of Medical Corporations, and of all Country Practisers.

We are informed by the Chief Justice, contrary to a received opinion, that Diplomas, in themselves, confer no title to exercise Medicine; and, by the learned Serjeant, that the London College of Physicians possess no

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authority to controul Medical Practice, beyond seven miles from London.

In this dilemma, what is to be done? It is abundantly evident, that the great body of Doctors will never voluntarily apply for licenses to the College of Physicians; and it is equally clear, that so long as some Universities continue to sell their honors for money, regardless of other considerations, a large majority of provincial Physicians will be unequal to their important duties.

The obvious inference to be drawn from the above premises, as it strikes my mind, is, that a legal enactment is much wanted, to secure Invalids from the most dangerous Pretenders; from men, who, under the sanction of a purchased Diploma, can usurp the first rank and greatest responsibility in the Profession, however ignorant and undeserving. The College of Surgeons being founded on Charter, can only examine such as come voluntarily before them; hence few country Practisers think of applying to them for admission.

No Country Apothecaries enter into the Apothecaries' Company; consequently, a very numerous and highly meritorious part of the Profession, engage in all its branches, without exhibiting any proof of competence. No thinking person can approve of this laxity, which, by placing the able and the ignorant upon an equality, weakens the stimulus to meritorious exertion.

Of all descriptions in the commonwealth, Apothecaries give up the most time gratuitously; and are most unseasonably disturbed by their inconsiderate and selfish employers. When the Act is obtained, they will, of course, charge something for attendance and for consultations, in addition to the drugs had and used; by which means they will materially increase their emoluments, and be less intruded upon by the Public.

As soon as the influx of empirical, and other incompetent Persons, is prevented, by suitable restraints, the benefits will be immediately and strongly felt by all the Disciples of Æsculapius; and by none more than the Surgeon-Apothecary. He will daily rise in respectability. From being an inmate of the steward's-room, or the squire's humble companion, in the absence of other guests, he may look forward to become the familiar associate of his most fashionable patients.

Before concluding, it will be proper to notice the intended provisions in the Bill concerning Graduates; because it was observed by a Correspondent, in the last Journal,

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nal, that all persons possessed of a Diploma will be at liberty, according to the provisions of the new Bill, to practise as Physicians; but he forgot that the Diploma is, in future, to be coupled "in all cases with strict examinations;" and what is still more important, "the names, with the titles of the Faculty, and the University where the Diploma was obtained, are to be annually published in a register."

Under these several checks, I think few would venture hereafter to practise with an inferior Diploma; nor will any Medical Candidate be suffered to present himself before the examining boards, until he has passed through a suitable course of professional study.

It is by these mild and simple means that a Reform, useful to the people and honorable to the Faculty, is proposed to be established; and to its speedy accomplishment I sincerely say, Amen.

Dec. 14, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AS there are many respectable practitioners who deal extensively in retail articles of Pharmacy, I request, through the medium of your useful and widely circulated Publication, to give this public caution to the profession, that several druggists, and other vendors of medicines, have been served, at the suit of the attorney-general and Stamp-Office, with exchequer writs, for selling soda-water without stamps.

It will also be prudent for those who retail lozenges, to be very cautious how they sell lozenges of any description, whether named, or not named, in the schedule of the Medicine Act of 1803, without stamps.

I am, &c.

W. CHAMBERLAINE.

29, *Aylesbury-street, Clerkenwell,*
Nov. 27, 1809.

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CRITICAL ANALYSIS
OF THE
RECENT PUBLICATIONS
ON THE
DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

A Treatise on Champignons. By M. PAULET, M. D.

[NOT having been able to procure this invaluable work, we offer the following Report, presented by Desfontaines to the National Institute.]

The work in question is divided into two parts. In the first, the author gives a methodical analysis of every thing that has been published on the subject of champignons, from the time of Theophrastus to the present day: nor do we recollect any writer that has escaped his notice. To this part are added critical observations on the nomenclature, synonomy and the salutary or deleterious qualities ascribed to certain species of champignons.

Among those whose writings stand in the highest estimation in this branch of science, M. Paulet distinguishes L'Ecluse, Jean Bauhin, Ray, Micheli, Tournefort, Vaillant, Linnæus, Haller, Schœffer, Bulliard, Batsch, and M. Persoon; the last of whom published a new classification of champignons a few years ago.

The second part of the work is divided into two chapters. The first containing general observations, and the second the description of the species; classed and arranged in an appropriate manner.

Champignons are described as pulpy, fleshy, coriaceous; sometimes resembling cotton, sometimes woody, or like cork, without leaves, petals, stamina, or pistils. On chemical analysis, their principles are analogous to those of animal substances; but they seem to be vegetables by their manner of growing, their reproduction, the places where they vegetate; and, finally, by their internal organisation. According to M. Paulet, they have a great affinity to the algæ; and, in his opinion, they form the last link which joins the animal to the vegetable kingdom.

Champignons grow in most abundance in temperate climates, and in woody countries. It appears that Europe produces them in greater plenty, than any other quarter of the globe. The most numerous species have their stalks terminated by an horizontal top, resembling a parasol; others are surmounted with a skin, plaited in different directions. Several have a bare stalk, and some have a globular form; such as the lycoperdons, or furze balls (*vesses de loup*).

In taste, smell, and colour, they differ considerably from each other.

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rather. A great number decay very soon; others continue longer on their stalks. Several are saturated with water, or filled with sap of various colours, and of different properties.

Champignons, when transplanted, never succeed. They perish in an instant; and great numbers are reduced to a black liquor, or rather into a fluid, resembling a *bouillie* of a fetid smell.

The soils and foreign bodies on which they grow, have a considerable influence on their consistence; but M. Paulet asserts very positively, in opposition to an opinion generally adopted, that the soil and climate do not, in the least, affect their poisonous or salutary effects.

The reproduction of champignons has long been a problem. Modern authors have discovered seeds in them resembling dust, and which are placed either on laminæ or appendices in particular boxes, or rather in the interior of the champignon itself; the skin of which is torn, in order to let them pass out. Their form is round or oval, and they are frequently projected out, as if by a spring. These seeds are connected together in a little net, as in the lycoperdons; or by a glutinous substance, as in what is called the white of the mushroom. They fall on the grass, or on the ground; and the author thinks that they are not altered when taken into the stomachs of animals, but are voided with the excrements in a round state.

We may easily see these seeds by suspending a champignon, in autumn, close to a mirror. The surface of the glass is soon tarnished and covered with a dust, which is the seed. We must here take the liberty to remark, that this opinion respecting the seed of champignons, does not seem completely unobjectionable.

M. Paulet assures us, that the white of the champignon, before germinating, is heated and swelled, and undergoes a perceptible fermentation.

The two chief causes of the developement of champignons, are heat and humidity combined: spring and autumn are the two seasons in which these requisites are prevalent in France. If summer and winter happen to be soft and rainy, they grow in these seasons also.

The most proper substances for favoring their developement, are vegetable matters in a state of decomposition; and animal matters combined with them, such as dung. When champignons grow on the trunks of trees, they indicate a decay in the wood.

The author afterwards treats of the signs, by which we may distinguish salutary from poisonous champignons; and points out the best method of counteracting the effects of those which are deleterious, when they have been taken into the stomach.

Almost all those of good quality are of a white, dry, firm texture, and grow in open places exposed to the sun. Those which are deleterious, grow under the shade of woods; they are less compact, most of them indeed are of a soft consistence; their surface is humid, and often viscous. Worms, snails, and other

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animals, scarcely ever attack any champignons, but those which are salutary to human beings. Those may be regarded as suspicious that are heavy, and of a variegated colour externally; as also those which change colour when cut or broken. The same may be said of the species with bulbous stalks, proceeding from an envelope; and of those which grow at the foot of certain trees, particularly the olive, elder, yew, elm, or fig-trees. The autumnal months produce more poisonous champignons than the spring.

Champignons may be injurious in several different ways; in some cases, on account of their coriaceous texture; in others, on account of their cottony or spongy texture, which imbibe the juices of the stomach, and swells like a spunge; and in others, from their having undergone some alteration, as the common champignon, for instance, when it becomes black. The other kinds used, the lycoperdons, or furze-balls, when they have attained their state of maturity; i. e. when the pulp assumes a greyish colour, are equally prejudicial. Lastly, there are great numbers which contain a very deleterious resinous principle; such as the false orange, the green orange, &c. as they are called in France.

Several among the poisonous champignons do not produce their effects until ten or twelve hours after having been introduced into the stomach. These are the most dangerous of all; and the remedies which we may employ with success in other circumstances, are in these fruitless, and even frequently injurious.

From a great number of experiments made on animals and men, poisoned by champignons, M. Paulet asserts, that vitriolic ether sensibly diminishes the activity of the poison, and prolongs life a little; but that the most certain remedies are evacuants, particularly emetics, if given soon after the champignons have been received into the stomach. Oil, theriaca, milk, spirits, vinegar, and salt water, according to M. Paulet, have no effect. Oil and milk, however, may be employed as emollients, when the emetic has emptied the stomach.

After these general considerations, the author gives, in a second chapter, a new classification of champignons, according to their natural resemblance. He divides them into four Classes: the first comprehends those which have a hat or parasol, becoming thinner towards the edges. The second, those with a membranous skin, and of equal thickness throughout their whole extent; folded and plaited in different directions, like morels. In the third class are comprehended the fingered (digités) champignons, and those without hats. The fourth contains the globular champignons, the seeds of which are contained in the interior, such as the lycoperdons.

These classes are divided into orders, the orders into genera, and the genera into families, which comprehend the species. To these M. Paulet has given French names, and described them with great precision. To each of the descriptions are added numerous experiments made on animals, with a view to ascertain the deleterious effects

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ects of various kinds of champignons; and to discover the best means of destroying or diminishing their influence. This part of the work is particularly interesting.

The author recounts a number of accidents from poisoned champignons in different countries. These species are much more numerous than is generally supposed. It would be very desirable to disseminate, as widely as possible, all the information we possess, with respect to the distinctive characters of good or bad champignons. In this respect the work is invaluable; particularly as it is accompanied by coloured engravings, extremely well executed. M. Paulet has been, from his infancy, attached to the study of this particular department in botany; and we trust that he will continue his inquiries on the subject.

Facts establishing the Efficacy of the Opiate Friction in Spasmodic and Febrile Diseases. Also, Outlines of an Attempt to investigate the Nature, Causes, and Method of Cure, of Hydrophobia and Tetanus. Republished from the London Medical and Physical, and the Edinburgh Medical and Surgical, Journals. To which are added, Cases and Remarks, not before published. By MICHAEL WARD, late Surgeon to the Manchester Infirmary, Dispensary, &c. 8vo. pp. 208.

THE candid Author of this valuable Production informs us, that he was first directed to try the effect of opiate frictions, by the account of a letter on the external use of opium, from Dr. Chiarugi, of Florence, contained in Duncan's Annals of Medicine for 1798; of which the following is a transcript:—

"In this letter the observations contained in the preceding article*, are partly contradicted and partly confirmed. The author, who is well known, from his very elaborate work on mental derangement, is chief Physician to the great Hospital of St. Boniface, which is appropriated entirely to maniacs. In treating their diseases, Dr. Chiarenti's discovery promised to be of great importance; and our author immediately resolved to carry it into practice. He was not, however, ignorant of the effects already observed by many practitioners from the external exhibition of this drug; and was persuaded that its action on the nervous system might be obtained, though not introduced into the stomach, without being dissolved in the gastric fluid, from the mere emanation of its volatile aroma. He, therefore, resolved to try it in the form of a simple ointment, made by incorporating a drachm of finely powdered opium with a pound of axunge. An ounce of

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* "A Discourse on the Mode of acting on the Human Body, by means of Frictions made with Saliva and other Animal Fluids, and the various Substances commonly given internally. Recited in the University of Pavia. By Cit. V. L. Brera, M. D. Professor of Medicine, Clinical Lecturer and Surgeon to the National Legion of Pavia." 3d Edit. 1796.

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this ointment, containing six grains of opium, procured sleep to a restless boy, who had been an ideot from his birth. Its effects were still more surprising on a peasant, in the heighth of a paroxysm of the most furious mania. *These frictions always rendered him calm, and sometimes threw him into a state of lethargic stupor. In this case a complete cure was at last effected.* It was exhibited, in the same manner, to twelve other persons, affected with melancholic or re-active madness; and from his observations on them he concludes, that although the sleep produced was not always proportionate, either in intensity or duration, to the dose of the opium; *yet a state of calmness constantly succeeded, sooner or later; and five of them have been cured, without the use of any other remedy.* Certain of the efficacy of the opiate ointment, he tried frictions of laudanum, diluted with a little alcohol; and found them equally successful.

"These experiments being all made on patients who were tied, there could not be any suspicion that the opium was swallowed. Dr. Chiarugi thinks that they fully establish the fact, that opium, however applied to the skin, penetrates it; and exerts its action diffusively on the nervous system, without any necessity for its being mixed with gastric juice, provided it be sufficiently divided or diluted. Although, therefore, our author does not agree with Dr. Chiarenti in all his opinions, he confesses the utmost obligations to him, for having led him to a practice, from which he has derived much benefit in a disease, in which it is so difficult to exhibit medicines internally."

A considerable number of papers follow, extracted from our Journal, being communications from the Author concerning the efficacy of opiate frictions in nervous head-ach, chronic rheumatism, maniacal delirium, a delirium occurring under a fractured leg, chronic dysury, and calculus; typhus fever, cases of gangrene, symptomatic hiccough, case of vomiting and diarrhœa accompanied with hiccough; cholera morbus, hooping-cough, trismus traumaticus, &c.

After this, the Author enters on the subject of hydrophobia and tetanus. Some introductory remarks are premised, the leading articles of which have already also appeared in our Journal. The observations relative to the necessity of theory, and the authorities produced in its favor, are very judicious and unexceptionable. We trust, no one will dispute the absolute necessity of being somewhat prepared for an event so sudden, and hitherto so uncontrolable, as rabies canina. We transcribe the following passage, on account of the long note appended to it; which has not, we believe, hitherto appeared, but shows, at a single glance, the style, manner, and object of the Author: —

"*In hydrophobia, the spasmodic and retrograde motions are principally confined to the pharynx, the œsophagus, the larynx, the epiglottis, the tongue, and the muscles employed in deglutition;* (the stomach, though an involuntary muscle, is often affected in the same

same manner); *hence the characteristic symptom of the disease, horror at the approach of liquids or food; hence also the inefficacy and fatal consequences of administering medicines internally, and the cruelty of urging the patient to swallow liquids. There are also convulsive motions of the heart and arteries, evinced by the violent palpitations which often take place. At the same time the voluntary muscles belonging to the chest and extremities are variously and violently agitated and convulsed* (the nervous power in them being abundant, and its action retrograde, but less so than in spasm; the energy of the brain seems also, in some cases, to be increased). *In some instances, there is merely an increased action of the voluntary muscles; in others, the latter are affected, partially or generally, with spasmodic or retrograde action, as in tetanus; all these circumstances contributing to produce that wonderful and horrible variety observable in the disease* *."

On

* "If the delineation which is here given of the nature, causes, and phenomena, of hydrophobia, be in any tolerable degree correct, and I have taken great pains to render it so, we need look no farther for a solution of the long agitated question respecting *the uniform failure* of the treatment it has undergone, and the consequent mortality of the disease. The reason is, (as I have long since observed) "the plan which has been adopted is altogether improper." It is not to any particular medicine that I object, but to medicines generally, *given by the mouth*. The fact is, we have had recourse to means, or, what amounts to the same thing, *to methods of administering those means*, which it is impossible in the nature of things should ever succeed, *on account of the sensibility, irritability, and mobility of the pharynx and œsophagus, and the spasmodic and retrograde motions with which they are, in ninety-nine cases out of a hundred, affected*. Hence the necessity which I have long ago and repeatedly insisted upon, "Of an entire change in our manner of proceeding, before any progress can be made in the methodus medendi;" and the propriety "Of avoiding every thing which can tend to agitate and alarm, excite uneasy sensations, or bring on a return of the spasms." In conformity to this intention, instead of importuning the unfortunate sufferer to swallow medicines, or liquids, of which he has so great a dread, clysters should be given every four or five hours to support the strength, consisting of good broth, milk, &c. with from 30 to 40 drops of laudanum in each. And however long the present *irritating* plans of treatment may be continued, *to these, and others of a corresponding nature, we must, sooner or later, resort*. This, however, will, in all probability, be a work of time. Opinions of a contrary kind, which have been so long in use, do not immediately lose their influence. Besides, to propose to relinquish the *internal* use of medicines, and to substitute *external* remedies in their stead *(for it will be useless to compromise the matter by uniting the two plans, which seems to be the prevailing mode at present)*; and to call in question the propriety of the very common, but injudicious practice of inviting, *and even soliciting*, this pitiable class of patients to take medicines, drink water, &c. (which is infinitely more tantalising, and not more humane, than to propose a walk to a bed-ridden paralytic); or what is equally shocking to the feelings, of pouring water from one vessel to another in the same or an adjoining room, (when the *surprize* of the spectators is always in proportion to the

horror

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On the supposition that diabetes is a spasmodic disease, the Author republishes his paper contained in our 7th volume, p. 503, to which we refer our Readers. Some other papers follow, extracted also from our Journal, containing further remarks on hydrophobia, tetanus, diabetes, and a case of opisthotonus successfully treated by Mr. Naylor of Gloucester. A case of trismus, cured by cold affusion, is also extracted from the Edinburgh Journal, some others from our own, and likewise from the publications of individuals.

A very interesting case of epilepsy is subjoined, in which the opiate frictions on the arms seem to have induced a temporary paralysis of those limbs. The patient continued to have slighter paroxysms for three succeeding years; "whether (says Mr. Ward) owing to the timely use of the proper means, or to a change in the habits of the patient, I cannot say certainly; probably to both of these causes." That the last is the most probable is to us confirmed by a subsequent Note, from which it appears that a change of diet, joined to a copious bleeding, had produced effects still more important.

"In an epileptic patient (says our Author) who was under my care so long ago as the year 1792, a permanent cure was effected by one copious bleeding during the paroxysm, followed after a short interval (which was employed in exhibiting an emetic, aperients,

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horror expressed by the patient) are regulations so directly contrary to those which custom has established, that instead of being surprized at their not having produced all the effects I wish, the wonder is, all things considered, that they should have had any effect at all.

"But what renders the prospect still more discouraging is, that a formidable list of *internal* and other *remedies* (as they are called) still remains untried, each of which, it is to be feared, will be allowed its share of victims.

"Among others which have been proposed (exclusive of a multiplicity of *nostrums* which still retain their influence) are wine, either alone or mixed with some of the mineral acids or vinegar; thieves vinegar; wine and vinegar injected per anum; capsicum and other aromatics; some of the concrete acids, such as the essential salt of tartar, of lemons, or the flores benzoes, joined with capsicum or other aromatics, formed into bolusses with flour and water; ipecacuanha joined with acids and aromatics; tartarized antimony; copious bleeding, joined with an antiphlogistic regimen and medicines; nitrous and other mineral acids; olive oil in large quantities; strong purgatives; *cob-web;* &c. &c. And, as if to show how far, in this particular instance, credulity may be carried, *bronchotomy* has been advised by Dr. Rush! I am told too, that the experiment has been tried. Need I add, but without success.

"Besides these, there are others, such as cicuta, belladonna, and others of the narcotic tribe; pure caustic alkali; the arsenical solution; cantharides internally, and externally in liniments; the *mercurial* friction; electricity; galvanism; warm and cold *bathing*, &c. are strongly recommended as being deserving of a farther trial; but which should, I think, be banished from practice in the treatment of Hydrophobia, as being totally inadequate to the production of the effects expected from them, and therefore unworthy of the confidence which has been reposed in them.

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rients, &c.) by a moderate use of cold bathing, and a complete change in the accustomed habits with regard to diet, exercise, &c."

The following case is scarcely less interesting. "M. J. H——, æt. 22, addicted to hard drinking, has had repeated attacks of maniacal delirium; the last and most severe of which was in August 1808. After several very turbulent and sleepless nights, I was called in on the evening of the 30th. A considerable degree of fever prevailed; the circulation was hurried; *he talked incessantly*, and every movement was expressive of the greatest possible degree of terror and alarm; to escape from the imaginary causes of which, he was constantly endeavouring to get away from his attendants, especially during the night.

"Bleeding, refrigerants, purgatives, antispasmodics, and the opiate friction, were prescribed; a strait waistcoat was also procured, to be in readiness: a precaution which happily proved unnecessary.

"The opiate friction was applied soon after he had been bled, (both of which were performed with difficulty, owing to the extreme restlessness) and ordered to be repeated every two or three hours, till he became more composed; the good effects of which were very soon evident, so much so, that it was used only twice in the course of the night: and at my next visit, the day following, I found him in a state of comparative ease and composure both of body and mind.

"Without continuing the narrative it will be sufficient to observe, that he was so completely recovered by the 5th of September, as to require no farther assistance, either medical or otherwise."

Another similar case is related by Dr. Bardsley. This success induced the author to make trial of the remedy in many other cases of spasm or convulsion, and often with advantage; among others, in convulsions during the eruptive fever in small-pox. The mention of this disease produces a Note on cow-pox, and a wish for parliamentary interference relative to the variolous infection. We heartily join in the wish, that the question should be subjected to such an inquiry as may lead to a just knowledge of its whole bearing. We shall here conclude our remarks with thanking the Author for the evidence he has collected on the mode of exhibiting an important remedy, which seems likely to alleviate diseases hitherto considered as desperate.

The Physician's Vade-Mecum: containing the Symptoms, Causes, Diagnosis, Prognosis, and Treatment of Diseases; accompanied by a Select Collection of Formulæ, and a Glossary of Terms. By Robert Hooper, M. D. &c. pp. 270. 8vo. London, 1809.

A considerable number of works have appeared very analogous to the present, under the titles of "*Outlines; Synopses; Text Books; Medical Pocket Books; Vade Mecums, and London Practices of Physic;*

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sic; the leading object of all being professedly, to exhibit a concise view of the state of the practice at the time they were published.

The general *theory* of diseases has long become pretty steady, or perhaps, a general indifference to it has discouraged speculative writers; but the *practice* is perpetually varying, on account of the introduction of new remedies, or new modes of exhibiting the old ones. A new disease occasionally presents itself also, which requires some time and experience to ascertain the best manner of treating it. Of this kind are the Yellow Fever, Cow pox, Tic Doloureux, &c. Several diseases also which have been long known, but the treatment of which is generally ambiguous or unsuccessful, will never fail to exercise the industry and ingenuity of practitioners. To this class belong, Hydrophobia; Hydrothorax; Gout; Chronic Rheumatism; Mania; Cancer, &c.

These causes are sufficient to stimulate experienced, or experimental practitioners, to communicate every improvement of importance to the public as soon as possible; and we rejoice in being able to say, that this Journal has been the vehicle of many such improvements.

The present publication, agreeably to the object of such works, exhibits an outline of the state of the *practice of medicine* at this time, according to the author's ideas on the subject. We must, however, inform our readers, that the names employed in the New London Pharmacopœia could not be introduced into this publication, as it was probably printed some time antecedent to the publication of that work. This defect may easily be supplied at present, by means of the lists, containing the new and old names, sold by all the medical booksellers; doubtless, the next edition will contain the new names.

In the execution of this work the author has followed the arrangement and names of Dr. Cullen's Nosology, which is now generally followed in these islands, and is, certainly, the best calculated for teaching. But in distinguishing some of the species, he has suffered himself to be too implicitly guided by that great authority, for the general purposes of practice.

As a Text-book for lectures, such specific distinctions may be very proper, but as a guide to young practitioners, we think them liable to mislead.

The distinction, for instance, between typhus mitior and gravior; scarlatina cynanchica, and cynanche maligna; sanguinous and serous apoplexy; with several others of this kind, must be considered only as land marks to the lecturers, not as guides to practice.

In the preface, the author says, "he has discarded all theory, and retained only those leading facts which it is absolutely necessary for a practitioner to be acquainted with, when he approaches the bed-side of a patient."

The order in which each disease is treated we think unexception-

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able, and commences generally with the nosology. An enumeration of the symptoms and signs is next given, which very properly introduces an account of the causes both predisposing and exciting. The author has purposely, and we think very judiciously, avoided those useless theoretical disquisitions about proximate causes, which tend more to embarrass than promote the science of medicine.

The accurate distinction of diseases being a point of the greatest importance in practice. Dr. H. has given all the diagnostic signs and symptoms with particular care. The *prognosis* is often involved in considerable difficulty, and yet the relations and friends of the patient always expect the medical attendant to give an early opinion on that subject. The proper directions on this head are always given.

The *treatment*, or manner of conducting the cure, concludes each disease; and after the proper indications have been laid down, and the means of fulfilling them pointed out, we have a very copious list of remedies, both simple and compound.

Though the above exhibits the general plan of treating each malady, there must necessarily be many deviations from it. Several morbid affections have a *specific* exciting cause which requires no predisposition: some few have no known remedy, as hydrophobia and cancer; in which the prognosis also, is sufficiently obvious without written instructions.

As this work is designed solely for the use of those who are intended to practice as physicians, no mention is made of local or surgical complaints. We think it compiled with attention and judgment, well calculated to answer the purposes for which it was intended.

Remarks on the Purulent Ophthalmy which has lately been Epidemical in this Country. By JAMES WARE, Surgeon, F. R. S.

By some accident this little tract was so long overlooked, that we should have left it unnoticed here, had it not been that the disease alluded to, still continues most seriously to pervade several regiments. However, Mr. Ware's object is to show that a purulent ophthalmy has been epidemical in England before the Egyptian expedition. Of the progress and symptoms of this disease, with a most accurate and correct account of the cause, we shall offer Mr. Ware's opinion in his own words.

"It is difficult to discover in what way this disorder was first occasioned. The resemblance which it bears to that species of ophthalmy, which in many instances, has either accompanied or followed the common gonorrhœa, strongly impresses my mind with an idea, that the two disorders bear a close reference one to the other. I believe it is admitted by the most experienced surgeons, that the gonorrhœa, in by far the greater number of instances, is perfectly distinct from the lues venerea; and that the remedies which are indispensibly required for the cure of the latter, are wholly unnecessary for the cure of the former. The first cause of the

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the gonorrhœa we do not know; but it is communicated by the application of a peculiar poison to the urethra, which inflames and excites a considerable purulent discharge from it. It is rarely productive, however, of any ulceration in the inflamed part, or any affection of the general constitution. In like manner, the purulent ophthalmy, (without inquiring at present into its first cause) appears to me to be in general communicated by the application of a peculiar poison to the tunica conjunctiva, which inflames and produces a considerable discharge from it, but rarely occasions any ulceration in this tunic,* or any affection of the general system. Infants, as well as adults, are subject to the purulent ophthalmy: and it is a fact, well deserving notice, that some of the worst cases of this disorder that have occurred in infants, have happened in those whose mothers were subject to an acrimonious discharge from the vagina at the time the infants were born. Some of the worst cases also, that have occurred in adults, have happened in those, who either shortly before the attack of the ophthalmy, or at that very time, laboured under either a gonorrhœa, or gleet.† I do not mean to attribute every opthalmy of this kind to such a cause. I am aware that it has sometimes occurred, and in the most violent degree, when no such circumstance could be suspected; but in the far greater number of adults whom I have seen affected by it, if the disorder had not been produced by the application of morbid matter from a diseased eye, I have been able to trace a connection between the ophthalmy and some degree of morbid affection in the urinary canal."

Mr. Ware proceeds further to remark, that this purulent ophthalmia, even when arising from the contact of gonorrhœal matter, is not to be confounded with the true venereal ophthalmia occuring among the secondary symptoms of that disease, and which he describes thus.

"In cases of this latter description there is generally a great exacerbation of pain during the night, and the internal parts of the eye are particularly affected. The pupil is usually contracted, and loses the power of altering its size in different degrees of light. The iris

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* Strictures in the urethra, not unfrequently follow a gonorrhœa; and ulcers of the cornea, as well as a rupture of this tunic, not unfrequently follow a purulent ophthalmy. But the former does not afford a proof of the previous existence of an ulcer in the urethra; nor does the latter, that an ulceration had previously taken place in the tunica conjunctiva.

† "Dr. Vetch observes in his account of "the Ophthalmia which appeared in England since the return of the British army from Egypt," p. 3, that in the 2d battalion of the 52d regiment, in which the disorder occurred, with a severity then unprecedented in this country, that "*excepting a great proportion of venereal cases,*" no particular distemper seemed to prevail; and the number of patients in the hospital were rapidly decreasing, when the first case of ophthalmia made its appearance. Among these venereal cases is it not highly probable that not a few had the gonorrhœa?

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iris assumes a greenish colour, and pustules not unfrequently form upon it."

We cannot help suspecting some ambiguity in this account, though we are ready with the author to admit that the purulent ophthalmia, if venereal, must in all probability arise from the immediate cause to which he ascribes it, because we have no instance in which secondary symptoms of lues venera affected mucous membranes, excepting by ulceration.

Abstracted from the practical remarks, the above are the principal objects of this useful little pamphlet. The practical remarks, though highly valuable, as might be expected from the long experience of the author, are so compressed, that we must refer those who feel particularly interested in this branch of the profession to the work itself.

Identities Ascertained; or an Illustration of Mr. Ware's Opinion respecting the Sameness of Infection in Venereal Gonorrhœa, and the Ophthalmy of Egypt; with an Examination of Affinity between ancient Leprosy and Lues.

In commenting on Mr. Ware's opinion, the lively author of this little production seems alternately in joke and in earnest. We find it extremely difficult to conceive him in earnest, when he admits, with so much ease, a position of Mr. Jesse Foot, and drawing an inference from it, which, even if the position were just, would be neither necessary nor even consequent.

"If, says he, the purulent opthalmia does arise from the contact of gonorrhœal matter, how are we to explain the reason why the two diseases so rarely appear together?" As if it were necessary, or even common for men with gonorrhœa, to bring any of the discharge into contact with their eyes. If they were likely, by such mean, to infect any mucous membrane, distant from the urethra, we should think it much more probable to be the nostril. To us, therefore, there appears no difficulty in assigning a reason why the two diseases should not more generally appear together; least of all, can we admit the explanation from the unfounded assertions alluded to.

"The principle to which allusion," says our author, is now made, was disclosed by Mr. Foot, in a short publication, under the title of his *newly discovered Fact*, some years ago; and consisted in this position, that the matters of gonorrhœa or chancre are not capable of producing any effect on any other part of the body *of that individual from whom they are derived*. The animal body cannot contract, in a new situation, these poisons, from matter yielded by itself. When there are profuse discharges from virulent gonorrhœa or corroding chancres, the application of matter must be made, in almost every instance, to various parts of the body, and even to surfaces as susceptible of being acted upon as those of the *pudenda* of either sex. The *tunica conjunctiva* of the eyes

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eyes is equally susceptible—the lips are susceptible—the nipples of a woman are susceptible—the anus is susceptible. But these diseases are never communicated to these parts from any person's own body. A chancre in the glans penis is never communicated to the præpuce, where there is a perpetual point of contact. It was supposed that contiguity of situation rendered parts unsusceptible. This was endeavouring to account, in a very superficial way, for what could not be comprehended: for it had never been presumed, that every part of the identical body was equally unsusceptible as parts in the neighbourhood. It was a limited assent to that principle, which is general over the body—an acknowledgment extorted from observation of matter being in constant application to the neighbouring parts without any effect being produced upon them. The inability, however, of receiving impression from the poison, does not depend on contiguity or remoteness, but is universal over the surface. When this is admitted, there will be no difficulty in conceiving the matters of gonorrhœa and of purulent ophthalmy to be the same, although they are so seldom known to have occurred together in the same subject."

Is it not well known, that Mr. Hunter inoculated two subjects with their own venereal matter, and produced chancres? That the Suttons and Dr. Woodville inoculated subjects from their own primary variolous pustules, and thus contrived to satisfy their minds by the appearance of a general eruption? Need we mention the number of instanceas recorded in our Journal, of young subjects who have infected themselves by their own vaccino virus?

We agree with the author, in considering the idea of metastasis, by some called the retrocedent gonorrhœa, as a wild hypothesis, and that if a purulent ophthalmia ever arises from such a cause, it must be by actual contact; but again, we see no reason why that matter should not be from the same individual. It is further urged, that if such were the cause, we should sometimes find ulcers in the eye, as gonorrhœal matter may produce chancres. It should however be recollected, that the eye is a secreting surface as well as the urethra, and therefore less likely to be ulcerated; but it is not less certain, that ulceration does sometimes occur, probably quite as often at the comparative ratio between the gonorrhœa and ulcers at the mouth of the urethra. This part of the argument is concluded by a reference to the controversy which has so often come before us, concerning the identity of the venereal and chancrous virus. As the author refers to no experiments, it is not to be wondered if he leaves the matter undecided, though he seems to lean to the opinion that the virus of each is different.

This leads to another suggestion, concerning the existence of the venereal disease, under the name of leprosy, anterior to the siege of Naples. In this, the old controversy of Becket, Astruc, and others, is renewed; and at last, the author, not content with the identities before remarked, seems determined to confound all distinctions.

"In

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" In recent times, the primary affections of the venereal disease were in possession of the mouth in some parts of the world, and the communication of infection the same as in leprosy of old. An ingenious pamphlet was published about thirty years ago, respecting sunch a condition of the disease in Paul's Head Bay, on the Northern coast of America. The name of the author does not now recur to the mind. A disease, under similar shape, has been long known in Scotland, among people of the lowest condition, under the denomination of Sibbens. Mr. Benjamin Bell has made particular mention of it in his Treatise on the Venereal Disease. There is not a doubt that these diseases were, in both instances, the true venereal malady, with all that acrimony of contagion which distinguishes a primary venereal ulcer wherever it may be found. They were genuine leprosy, of which the circulation did not take place by venereal intercourse, but from other opportunities of contact in the common concerns of life; and if the aid of mercury was not cultivated, would have proceeded to as dreadful extremity as leprosy in any age. They have been considered a different kind of the venereal disease. The only difference is in the primary symptoms, which alone can convey infection, being in a different situation. Upon the surface of a spoon, or the edge of a drinking cup, their matter would communicate the most malignant venom to the lips or fauces of another person, while perfectly innocent to every other part of the surface of the body by which it was produced."

To say no more, it is at least bold in this anonymous Writer, to offer so decided an opinion on three diseases, two of which he does not pretend ever to have seen, yet modestly sets to rights those who have taken pains to mark all the distinctions.

The remainder of the pamphlet again refers to the strange notion, that matter from the same individual, applied to a different part, will produce no infection. On this subject, we wish the Author to study Mr. Hunter, instead of skimming over the pages of Mr. Foot.

Report of the Diseases of Edinburgh for November, 1809.

By JOHN ROBERTON, M. D.

THE weather, about the beginning of the month, was soft, and the air moist and disagreeable. Cold unpleasant fogs too prevailed, especially after sun-set, rendering the evenings very unhealthy, particularly to those subject to chronic diseases. This state of the weather was succeeded by smart frost, which continued a week or two, accompanied by cold sharp winds. The surrounding mountains were all covered with snow, which is almost al-

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ways the case immediately previous to this state of weather at Edinburgh. This, however, in the present instance, has not been the case, as hitherto we have had no snow this season. About the last third of the month, we had frequent heavy falls of rain, accompanied by gales of wind. The mornings again became frosty, and the days soft, but, upon the whole, pleasant till the termination of the month.

The barometer, which stood high about the end of last month, sunk considerably during the thick and foggy days, and even during the frost it was rather low; indeed, throughout the whole month it was low.

The thermometer, except during the frost, when it was very low, stood in general about 40 of Fahrenheit's scale.

The prevailing diseases have been various chronic affections, and, in addition to the acute complaints, such as catarrh, rheumatism, &c. which formerly prevailed, there has, as is very common about this season, been added different inflammatory affections. Fevers and smallpox, I may also remark, have been very malignant and very destructive, especially fevers.

The chronic diseases, which most generally prevailed, were rheumatism, catarrh, and asthma. The too generally unsuccessful treatment adopted in these diseases I had formerly an opportunity of detailing, and it is therefore now unnecessary to repeat it. The acute diseases are, in some measure, similar to those of last month, such as catarrh; the rheumatism too has been frequently met with in practice. The diarrhœa, however, of last month seems to have become less common, nor has it been so severe. Ophthalmia also has not been so frequently met with as might have been expected; indeed, it has almost disappeared. The most commonly to be met with inflammatory complaints are pneumonia, enteritis, and, among chilrden, that inflammatory affection of the brain which generally, unless actively treated, terminates in effusion of water into the ventricles. The cases of pneumonia have not been very general, but they have appeared in some instances with great violence; although they have not in general terminated fatally, they have only been prevented from doing so by the most active treatment. The best proof of this is, that the patients who, from neglect either of themselves, or their medical attendants, were not subjected to the active means alluded to, either died or escaped with the greatest difficulty. I have had occasion to order repeated venesection in a very few days, and that

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that, at each time, the patient should be allowed to bleed till he became faint. The application too of large blisters over the whole forepart of the thorax, with the frequent administration of brisk saline cathartics, were found absolutely necessary to prevent fatal consequences.

The only application which seemed decidedly advantageous in the cases of enteritis, was the frequent application of large blisters over the whole abdomen. Bleeding did not seem nearly so advantageous. I confess, the application of such large blisters as I have alluded to, are very inconvenient and disagreeable; but their speedy efficacy in the removal of the disease is wonderful, inducing a patient to submit to almost any application, however severe.

The cases of inflammatory action of the brain, I have frequently remarked, are most advantageously treated by repeated blistering all over the head, with the frequent administration of brisk purgatives. In short, there seems to be no other method of overcoming that affection but by these means. In severe cases, the application of leeches to the temples, and even opening the temporal artery, is of very great benefit. It is, however, unnecessary for me again to dwell upon this subject.

I have given, I believe, a new view of this universally prevailing and fatal disease, and a very effectual mode of subduing it.

The small-pox seems rather to have increased in severity since last Report. The disease, indeed, is not very general, but some cases of the worst kind occur in practice. Considering the means we possess, of obviating this disease, it is shameful that it should any where exist.

The fevers which prove most troublesome at present are of a slow kind. The symptoms are not violent, but the course of the complaint seems to be of an indefinite length. Thus it wears out those who are its victims, and in many instances, after nearly a month's continuance, it has proved fatal. Those who recover from it are very much reduced in strength, so much so, indeed, as scarcely to give us room to expect a complete restoration of health for several months.

Princes Street.

INTELLIGENCE

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INTELLIGENCE.

A very curious fœtus has lately been brought into the world; all the parts of which, from the head to the upper part of the abdominal viscera were double; what is still more remarkable, the organs of generation were double, complete, and exhibited separately the parts of each sex, external and internal. The vast and inconvenient volume of the two heads, rendered it impossible to bring them alive into the world.

Common spirits of turpentine have been recently administered by several medical gentlemen of the metropolis, with good effect, in the cure of tape worm. The doses given were in some cases so large as two ounces, but those of half an ounce at a time, repeated twice a day, were generally found to answer the purpose. The vehicle in which the turpentine was administered, was generally honey.

Doctor VAN MARUM has discovered a very simple method, proved by repeated experiments, of preserving the air pure in large halls, theatres, hospitals, &c. The apparatus for this purpose is nothing but a common lamp, made according to Argand's construction, suspended from the roof of the hall, and kept burning under a funnel, the tube of which rises above the roof without, and it is furnished with a ventilator. For his first experiment, he filled his large laboratory with the smoke of shavings. A few minutes after he lighted his lamp, the whole of the smoke had disappeared, and the air was perfectly purified.

M. CHAPTAL has recently made experiments so as to ascertain the nature of seven specimens of colours, found in a colour-shop at Pompeji. No. 1, the only one which has not received any preparation from the hand of man is a greenish and saponaceous argil, in the state in which Nature presents it in various parts of the globe, and resembling that known by the name of the Terra di Verona. No. 2, is an arch of a beautiful yellow, all the impurities of which have been removed by washing. As this substance turns red by calcination with a gentle fire, the yellow colour, which it has preserved without alteration, affords a new proof, that the ashes which covered Pompeji retained but a slight degree of heat. No. 3, is a brown red, like that employed at present for coarse work, and is produced by the calcination of the preceding. No. 4, is a pumice stone, extremely light and white; the texture is very fine and close; the three others are compound colours, which M. Chaptal was obliged to analyse, in order to ascertain the constituent principles. From his experiments on No. 5, which is of a deep blue, and in small pieces of the same form, it appears to be composed of oxyd of copper, lime, and alumine. It resembles ash blue in the nature of its principles, but differs from them in its chemical properties. It seems to be the result, not of precipitation, but of the commencement of vitrification; and the process, by which

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which it was obtained by the ancients, is lost. No. 6, is a sand of a light blue, mixed with some small whitish grains. On analysing it, M. Chaptal discovered in it the same principles as in the preceding; indeed, it may be considered as a composition of the same nature, in which there is a greater proportion of lime and alumine. No. 7, is of a beautiful roseate hue; it is soft to the touch; is reduced between the fingers to an impalpable powder: and leaves upon the skin a pleasing carnation colour. From M. Chaptal's experiments, he looks upon it as a real lake, in which the colouring principle is united with alumine. In its properties, its hue, and the nature of its colouring principle, it has nearly a complete analogy with madder lake. The preservation of this lake for nineteen centuries, without perceptible alteration, is a phenomenon which cannot fail to excite the astonishment of chemists.

For some time, the curiosity of the Parisians has been gratified, by Messrs. Franconi, with a spectacle truly extraordinary, that of the most shy and timid animal, a stag, tamed and trained to the same performances as the most docile and courageous horse. Led by his instructor, the docile animal advances into the arena, looking round on every side; with an air equally expressive of gentleness and intelligence. At the command of his master he bends his knees, and respectfully bows his head. M. Franconi mounts his back, cracks his whip, and fires pistols, at which the animal shews neither fear nor alarm. After this first experiment he is left to himself, and made to perform the exercises of the manége, like the best-trained horse. He sets off at full gallop; turns and stops at the word of command. He leaps over rails with wonderful agility, and even clears two horses at once. After every performance he stands still, fixes his eyes on his master, and endeavours to discover from his looks whether he is satisfied. Mr. Franconi then goes up to him, pats him, and bestows other caresses, for which the gentle animal testifies the highest gratitude. In the last place, a triumphal arch, charged with fire-works, is erected in the middle of the air; it is set on fire, and the stag, impatient for the signal, starts off, as soon as it is given, and passes twice under the blazing arch, amidst the shouts and applauses of the spectators.

We are disappointed in our expectations of the account of the man bitten by the rattle-snake. A very ingenious paper on the case, by Mr. Home, has, however, been read before the Royal Society, giving an account also of other snakes in America, and of the cobre de cabello in Asia. We shall, in a future number, offer the substance of this communication.

We have received from Dr. Andrews, and the other physicians of Madeira, English and Portuguese, an accurate account of the success of vaccination in that island. This account is chiefly intended to answer the unfavourable representations of Dr. Carneiro. As it contains also some valuable information relative to the epidemic measles, hooping-cough, and dysentery, introduced by the military, we shall give the whole in our next.

Dr.

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Dr. Buxton's Spring Course of Lectures, on the Theory and Practice of Medicine, will be commenced about the middle of January, 1810, at the Medical Theatre, London Hospital.

Dr. Clarke and Mr. Clarke will begin their Spring Course of Lectures on Midwifery and the Diseases of Women and Children, on Monday January the 29th, 1810. The Lectures are read every day, at the house of Mr. Clarke, No. 10, Upper John Street, Golden Square, from a quarter past Ten o'clock in the morning till a quarter past Eleven, for the convenience of Students attending the Hospitals. For particulars, apply to Dr. Clarke, No. 1, New Burlington Street; or to Mr. Clarke, No. 10, Upper John Street, Golden Square.

Dr. Clutterbuck will begin his Spring Courses of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, on Monday, January the 22d, at a Quarter before Ten in the Morning, at his House, No. 1, Crescent, New Bridge Street, Blackfriars; where further Particulars may be had.

Dr. Ramsbotham will read the Introductory Lecture to his next general Course on the Science and Practice of Midwifery, on Wednesday January the 3d, 1810, at Seven o'clock in the Evening, at his house, No. 9, Old Jewry.

Dr. Reid's next Course of Lectures on the Theory and Practice of Medicine, will commence on Wednesday, the 3d of January. The Introductory Lecture will be delivered on that day, at six o'clock in the evening; and the subsequent Lectures will be given at the same hours, on Mondays, Wednesdays, and Fridays, until the conclusion of the Course on Friday, the 23d of March.

Dr. Squire will begin a Course of Lectures on Midwifery, and the Diseases of Women and Children, on Tuesday January 16.—For particulars apply to Dr. Squire, 30, Ely Place, Holborn.

Mr. Taunton's Spring Course of Lectures on Anatomy, Physiology, Pathology, and Surgery, will commence on Saturday January the 27th, 1810, at Eight o'clock in the Evening *precisely*, and be continued every Tuesday, Thursday, and Saturday, at the same hour. Particulars may be had on applying to Mr. Taunton, Greville-Street, Hatton Garden.

Dr. Adams has published his new edition of Mr. Hunter on the Venereal Disease. The Text is unaltered; the Introduction and Commentaries are very copious. The whole is included in a single 8vo volume.

Dr. Trotter will shortly publish "An Appeal to the Officers of the Royal Navy, on the Measures which have been resorted to, to deprive him of the increased Pay lately granted to Naval Physicians. With official Documents, Certificates of Officers, and Reflections on the present Medical Establishment."

Dr. Uwins, of Aylesbury, has in the Press, just ready for Publication, a small Tract, entitled, Cursory Remarks on the Causes,

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Causes, Prevention, and Treatment of Fever, occasioned by the recent occurrence of an Epidemic Disorder in Aylesbury and its Neighbourhood.

Diseases and Casualties in London in the Year 1809.

Abortive and Stillborn	51	Grief	5	Water in the Cheſt	11
Abſcefs	49	Jaundice	26	Water in the Head	252
Aged	1251	Jaw Locked	4	Worms	5
Ague	4	Inflammation	511		
Apoplexy & Suddenly	203	Influenza	3		
Aſthma and Phthiſic	486	Livergrown	21		
Bile	2	Lunatick	166	Bit by a Rattleſnake	1
Bleeding	24	Meaſles	106	Bit by a Mad Dog	1
Burſten and Rupture	15	Miſcarriage	2	Bruiſed	5
Cancer	55	Mortification	167	Burnt	20
Childbed	123	Palſy	128	Drowned	124
Colds	15	Palpitation of the Heart	1	Exceſſive Drinking	7
Colic, Gripes, &c.	15	Pleuriſy	19	Executed	6
Conſumption	4570	Quinſy	3	Found Dead	8
Convulſions	3463	Rheumatiſm	2	Fractured	2
Cough, and Hooping Cough	591	Scarlatina	1	Frighted	1
Cramp	2	Scurvy	4	Frozen	1
Croup	81	Small Pox	1163	Killed by Falls, and ſeveral other Accidents	68
Diabetes	1	Sore Throat	7	Killed themſelves	52
Dropſy	736	Sores and Ulcers	5	Murdered	1
Evil	2	Spaſm	24	Overjoy	1
Fevers of all kinds	1066	St. Anthony's Fire	2	Poiſoned	4
Fiſtula	3	St. Vitus's Dance	1	Scalded	5
Flux	9	Stoppage in the Stom.	20	Smothered	1
French Pox	29	Strangury	1	Starved	1
Gout	30	Teeth	308	Suffocated	7
Gravel, Stone, and Strangury	10	Thruſh	39		
		Tumour	1		
				Total	326

Chriſtened	Males - 9981 Females - 9631	In all	19612
Buried	Males - 8636 Females - 8044	In all	16680

Whereof have died,

Under Two Years of Age	4937	Fifty and Sixty	1419
Between Two and Five	1916	Sixty and Seventy	1235
Five and Ten	754	Seventy and Eighty	1063
Ten and Twenty	506	Eighty and Ninety	369
Twenty and Thirty	1145	Ninety and a Hundred	54
Thirty and Forty	1472	A Hundred	2
Forty and Fifty	1748		

Decreaſed in the Burials this Year 3274.

This year appears to have been particularly healthy, the decrease of deaths being 3274, compared with the preceding, which had not exceeded the year 1807 more than 1620. This decrease cannot be imputed to a diminiſhed population of that part of the town which is included within the bills, because the number of chriſtenings come within three hundred of the last year. Small-pox remains nearly the same as last year, which shows the disease has been mild, as it is notorious that it has been more general.

The

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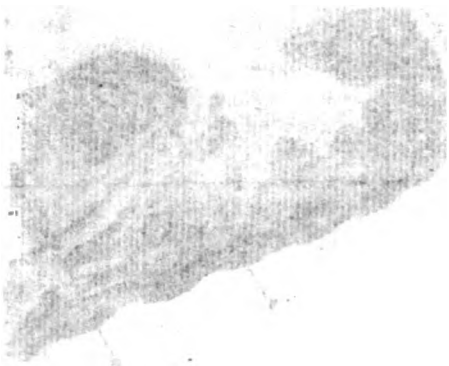

Cooper sculp.

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THE

Medical and Physical Journal.

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Case of Suppuration of the Brain, discovered by Dissection, but not suspected during Life. By JAMES EARLE, Esq.

(With an Engraving.)

MICHAEL KELLY was admitted into St. Bartholomew's Hospital, August the 3d, 1809. His age was about 40, his occupation a mason; he was naturally of a morose irritable disposition, and of a very costive habit of body. At the time of his admission, he had a small sore on his penis, a swelling in his right groin, an ulcer in his throat, and several scabs on his face, head, and over his body; his skin was hot and dry, his tongue furred, and his bowels costive. Prior to his admission, he had used a great deal of mercury in the form of pills, and was evidently labouring under the mercurial fever. He was directed to take some opening medicine, and afterwards salines with antimony. The scabs were fomented, and covered with soft dressings; when they came away, several ulcers were exposed to view with high excavated edges, considerable surrounding inflammation, and were acutely sensible. He continued this plan of treatment for some time; the fever gradually abated, and he improved in health. The only alteration for the first month was, that the sores were three different times fumigated with the sulphurate of mercury, and each time became more irritable and sloughed. During all this time he passed very restless nights, being much troubled in his mind about a promise of marriage which he had made and had broken through; he repeatedly told the nurse that he believed his present affliction was a curse from God, and swore positively that he had never touched but *one* woman who *never* had any venereal complaint. At the end of a month, his health and mouth permitting it, a mercurial course was recommended. He rubbed in a drachm of mercurial ointment for seven nights, when his health became considerably worse; his sores spread and his fever returned; he was now ordered to discontinue his

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mercury, was removed into a more airy ward, and directed to take salines as before.

Thus far in the history of the case, I am indebted to my friend Mr. C. Wingfield, I myself did not take the patient under my care until the latter end of September; I regret much that it was not in my power to gain any clear information respecting the origin and progress of the disease prior to his admission into the hospital. When I first saw him, his skin was very dry, his tongue covered with a dark brown fur; he had no appetite; his pulse were frequent and wiry; he was very irritable, could not rest at night, and was so debilitated as not to be able to sit up in bed; he had also regular exacerbations of fever at night, and profuse sweats towards morning. The sores were in a very foul state, particularly those on the head and nose: the edges were very hollow; the sloughs of the cellular substance and tendon of the occipito-frontalis, extending in some parts nearly an inch under the skin; the superincumbent skin had a tawny colour, and was very painful, exhibiting altogether one of the most horrible objects I ever beheld. When the scabs and sloughs were removed by bread poultices made with the expressed juice of the carrot; the bone was left bare in several places; it had not the appearance of a carious bone as in the true syphilis, but exactly resembled a bone laid bare by external violence. Light preparations of bark with sulphuric acid were given him every six hours, and Plummer's pill with a grain of opium was directed to be taken night and morning; his bowels were kept regular with the confectio sennæ; his stools at first resembled pitch in consistence and colour, and had no feculent smell. The sores were carefully dressed twice a day with lint dipped in a weak solution of argentum nitratum; the edges were occasionally touched with it in a pure state, with a view to bring them more on a level with the sore, without which it was impossible for them to heal. Under this mode of treatment he improved considerably; the secretions from his bowels were better, and the sores improved; still, however, he rested ill at night. The whole list of narcotics was tried to a great extent, but to very little purpose; they relieved for a short time, but soon lost their effect. The means of relief afterwards adopted were small alterative doses of mercury, as one grain of calomel every second night, and tonics. It was frequently necessary to change his medicine, for he was exceedingly fanciful.

He continued progressively mending until the middle of

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of November; several of the sores were healed, and others were healing; one, however, on his nose was still irritable, when a small sore on his right cheek became painful and sloughed; immediately almost the sore on the nose improved, a circumstance I have frequently observed to take place. This sore continued to spread till it reached the corner of his mouth, and destroyed the levator anguli oris, in consequence of which the lip hung down, and he was unable to retain his saliva; it was very difficult to keep any dressings on this sore, which made it considerably worse; the discharge dried on the surface of it, forming hard scabs, which kept up continual irritation. I should have mentioned that all the sores, when I first saw him, had this disposition; and I consider that the improvement which took place in them, depended, in a great measure, in the careful removal of these scabs and sloughs twice a day, until the discharge became less in quantity, and more puriform.

On Tuesday, the 21st of November, I placed a small blister on the right temple, thinking that counter irritation might stop the progress of the sore on the cheek, as *it* had done that on the nose.

On the Wednesday night, after having taken a scruple of hyoscyamus and two grains of opium, to procure sleep, he rambled a little, frequently calling upon me; when awake he was perfectly collected. The sore looked a little better the following day, but at night he again was restless, and rambled; the same occurrences took place the two following nights, but in a very slight degree; his appetite had been falling off for some days, and he now refused to take food.

On Sunday, he told me he felt better; the sores *all* looked well, the blister had been kept open; his pulse were now strong and full, about 80, although he could not rise from his pillow. I remarked to Dr. Spalding, who was with me, that I thought it was the last effort of the constitution: the only remarkable thing I observed that day was, that he did not appear to be able to measure distances correctly; he could, however, see me, and answered my questions quite rationally. The following morning, at six o'clock, he terminated his wretched existence.

At five the same evening, I examined his body.—On opening the abdomen, I found the viscera, generally speaking, healthy; the only circumstances worthy of note were, that the gall-bladder was closely contracted round three large gall-stones, about the size and form of large

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dice. The fæces were tinctured with bile. The spleen was small and pale. The thoracic viscera were also perfectly healthy. I next examined the head, more with a view to see the internal table of the skull, than in any expectation of finding disease. On removing the calvareum, I discovered a considerable slough and thickening of the dura mater, just above the right orbit, opposite to where the bone was laid bare. The internal table did not appear diseased; at one very small place, the bone had been absorbed; it was, however, covered externally with granulations; the external table to some extent was exfoliating kindly. Under this slough I felt a fluctuation. It being very late and dark, I resolved to remove the whole brain, and dissect it at my leisure; with this view, I cut through the dura mater below the slough, and on raising the anterior lobes of the cerebrum, was surprised to find the basis of the cranium between the dura mater and arachnoid coat filled with very fœtid pus. The following morning I carefully laid open the back part of the right lateral ventricle, leaving the anterior part and the abscess untouched; here I found the same fœtid pus, the choroid plexus was devoid of vessels, and had a sphacelated appearance, and the surfaces of the corpus striatum and thalamus were inflamed and ulcerated. At its anterior horn, the ventricle had a large ulcerated opening, with surrounding inflammation, which communicated with the abscess, which was now laid open, and found to occupy near one-third of the substance of the right hemisphere; its sides were covered with white sloughs. The left lateral ventricle was enlarged, its roof being half an inch higher than the corpus callosum; it had probably been filled with pus, the foramen of Monro being very open, but it had escaped by an opening made with the saw into the posterior horn. There was a small opening between the convolutions of the brain into the abscess, just where it rests on the orbital process. Pus was also effused under the tunica arachnoidea in the basis of the brain, which had escaped from the fourth ventricle. The medulla oblongata was rather soft and irregular on its surface.

I have thought the case worthy of being recorded, inasmuch as it shows to what an extent diseased action may go, in the brain, without its even being suspected during life. I merely add the following ideas which I entertained on the subject, as an attempt to explain the phænomena which presented themselves. This state of the brain must have existed for a considerable time; is it not probable then,

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then, that the diseased action was first set up when the external wounds were in a foul sloughy state? Judging from analogy, this must have been the case; we know that abscesses and sloughs form on the brain from the effects of external violence done to the scalp, and in these cases, the external wounds are in a flabby, unhealthy state; certainly, the state of the sores and the bone for some time prior to death were not sufficient to account for this diseased state of the brain. The means employed, which seemed to have so good an effect on the external wounds, were insufficient to arrest the progress of a disease in a part whose vital powers were so feeble. I may also add, that the disease being once instituted in a circumscribed cavity, the irritating cause must still remain, and increase as the disease increased, or, to use the words of the Poet, "Parva primum mox vires acquiret eundo," and Nature at length finding herself incapable of making reparation, gives up the point, and death closes the scene. With regard to the cause and nature of the disease, it certainly in its appearance and progress was not venereal. It seemed rather to depend on a peculiar state of the constitution, (perhaps dependant on his disturbed state of mind,) which state was much aggravated by the improper use of mercury. I am induced to give this opinion, from having frequently had similar cases, which were relieved by persevering in an alterative and tonic plan of treatment.

To Dr. ADAMS.

My dear Sir,

I Had hoped that sufficient proof was already adduced, not only of the benefits to be derived from that source, but of the great advantages attending the introduction of vaccination over the inoculated small-pox, as at least to have satisfied medical men, and to have fully justified the interference of the legislature, in preventing a continuance of the latter practice, as far as such an interference could be effectual.

There still appear to be *some*, who think proper to doubt the probity of the College; whose interest, in determining the point in question, could only be directed to the public good.

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Of such a class is Dr. Carneiro; and of how little soever importance his work may be in the opinion of professional men, yet with the public at large, it is calculated to shake the confidence of those, whose only power of determining, is by comparing what may be advanced by the partisans on either side. Under such circumstances, therefore, it becomes the duty of every individual to correct whatever he finds erroneously stated; and to that part of the book which bears reference to this island, I shall confine my reply.

It is evident that the Doctor speaks only from report, but this is not a sufficient apology, as he should have taken pains to correct or confirm his information.

He says, "Besides, we learn from travellers and correspondence, that in the Island of Madeira, where the vaccine influence has been so prevalent, an eruptive fever, called by the physicians and surgeons measles, has raged epidemically and fatally.—Here it may be observed,

"1st. That the persons attacked with the eruptive fever, had the measles before.

"2dly. That the eruptive fever now predominant, has not so regular a type as the true measles.

"Hence it appears, that the diseases most frequently consequent on vaccination in warm climates, are of a pituitous kind, called by the cow-pox partisans, measles, having no other symptoms of the true measles, than the sneezing and the smallness of the eruption." *

That the epidemic alluded to, and which the Doctor is pleased to consider as an eruptive fever, the consequence of vaccination, was measles, will, I trust, be satisfactorily proved; and that vaccination has been successfully practiced here, I am equally sanguine that the evidence I shall produce will sufficiently establish.

In the beginning of May, 1808, a detachment of the 11th regiment landed here; some of the soldiers' children, brought on shore with the measles on them, were taken to the Military Hospital.

A few days after their landing, I was desired to see a child of Mr. Cathcart's, (the American Consul for this Island,) who had a considerable fever; in two days an eruption appeared, accompanied with all the symptoms of measles distinctly marked. At this time, however, though confident

* Vide Reflections and Observations on the Practice of Vaccine Inoculation, &c. by H. Carneiro, M. D. p. 88 and seq. English Edit.

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confident that the disease was measles, I was unacquainted that it had been introduced by the troops; and on my mentioning the case to Dr. Gourlay and others, they were rather led to think I might have been mistaken in the disease. It, however, went through the whole of the family, consisting of five children, one of whom was so severely affected with the pulmonary symptoms, as to require bloodletting to a considerable extent. A lapse of near two weeks took place, before another *island*-case appeared, and this also happened to be a patient of mine, living in the neighbourhood of the former. This led me to trace the source of infection; and it was then that I learnt the circumstances above related, and found that the little girl, who was the subject of the last case, had been in the habit of looking into the court-yard of the hospital as she passed by to go to school; and as the servants of the Consul daily passed the hospital gate in their way to and from town, I felt no difficulty in concluding that the infection might have been conveyed by those means.

It was at first objected, that the great length of time since that disease had visited this island before,* rendered it likely that it would have immediately spread, with a rapidity that such diseases are noticed to do in warm climates, and consequently, that the other practitioners would, ere this, have seen some cases also. This, however, happened so soon afterwards, as to put the matter beyond a doubt.

That the measles terminated fatally in many cases, there can be no doubt; it is not less certain, that neither the disease nor its consequences could be attributed to the effects of vaccination, since many who had it, never were vaccinated, but had regularly gone through the inoculated or casual small-pox.

Although the great mortality of that year was generally attributed to the measles, I cannot help considering them in a great proportion of cases, as the predisposing cause only; the fatal cases having generally terminated by dysentery, and that at a considerable distance of time, after the measles had been considered as subdued in those particular cases to which I allude.

To persons who have resided here, it is well known, that during the *fruit* season, there is generally a bowel complaint prevalent, arising from the too free use of

* I believe about fifteen years.

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that *article* in all its stages of maturity. The natives of the lower class, in fact, eat every part of the fruit, never considering whether it be ripe or not; the consequence of such a *diet* (for in reality it is *such* to many), after the constitution had been previously reduced by a severe inflammatory disease, was, what a priori might have been expected, acute dysentery, which in a great many instances terminated fatally.

As an additional proof of what I have advanced, it may be observed, that when a proper attention had been paid to the state of the bowels, for some weeks after the measles were subdued, and no fruit or irritating matter of any kind had been received into the stomach, such patients universally recovered.*

With respect to the effects of vaccination, as rendering the constitution free from the susceptibility of small-pox contagion, we have something more than presumptive evidence.

In June 1808, when the 2d Royal Veteran battalion arrived here, it was reported that they had some children under the influence of small-pox; of course, there was much apprehension entertained of its spreading.

I did not then consider that vaccination had been practiced with such energy by the professional men here, as appears really to have been the case.

About eight or ten days after the troops had landed, whilst in conversation with Dr. de Fretis and Mr. Woolriche on this subject, the wife of one of the soldiers came up to us, having in her arms a child with a very full crop of variola of the distinct kind, and in the latter stage. Some days after, the disease appeared upon another child, so that there can be no doubt of its having been in the island, and of its having gone through all its stages here.

As no steps were taken to prevent the infection spreading,† and as it was at the most favourable time of the year for such a circumstance, its having ended with these cases, becomes as strong an evidence in favour of vaccination, and as great a proof of the activity of the medical men of the island, as can be required.

Still, without a bond of union, or an establishment for the

* It is to be remembered that I speak more particularly of such cases as came under my own immediate observation, but I have also heard the same remark from others.

† The children were allowed to mix with the natives.

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the preservation of the matter, it is not wonderful that it should become exhausted, the exertions of individuals are unequal to the charge; besides, that, from a particular religious impression, many of the natives are averse to vaccination.* This induced me, in the year 1805, to propose to the governor, Senhor Arcaneo da Seguiera Freire, to form an establishment under his patronage for the general inoculation of the cow-pox through the island; and in order to render it more effectual, to obtain the assistance of the clergy, in removing their scruples concerning interfering with the *Divine Will*. I was particularly led to make this proposal, from having been informed that the governor had received instructions from his court, to give every assistance in his power to the cause.

Well aware that a plan upon an expensive scale was not likely to be countenanced, I had arranged it so that the government would not have been put to any expence; some of the merchants to whom I communicated my intentions, readily offering to become subscribers.

My proposals, however, met with no encouragement, and consequently every thing was left to depend on the zeal of individuals.

Shortly after the present governor arrived, I repeated my applications to him, but with the same ill success. Had General Beresford continued longer in the government, he promised me every assistance in his power.

Not having kept a register, I cannot with any accuracy state the number that I have vaccinated, but suppose, since 1803, it cannot amount to more than from four to five hundred, and I cannot recollect a single instance of any ill effect. Many of the number may have failed, as I had it not in my power to ascertain the progress of the complaint in those who lived at a distance from the town, as those children were most frequently not brought to me again, after the operation had been performed. In one or two cases, an ulcer on the arm has been the consequence of an early removal of scab, but this readily yielded to a weak solution of vinegar and water.

As however it is desirable in the cause of truth, wherein the comfort and happiness of so many depend, that no part of the report should rest on the authority of any individual, I wrote the following circular note to Dr. Gourlay,

* This is principally confined to the lower class.

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lay, Dr. De Fretis, physico mor, in the island of Madeira, &c. and Dr. Curado; their answers to which I have subjoined.

(CIRCULAR.)

To Dr. WILLIAM GOURLAY, *Physician to the Factory in the Island of Madeira.*

DEAR SIR,

YOU will oblige me by the favour of your answers to the following questions, and such further observations as you may have made on vaccination.

Believe me, yours truly,

Funchall, Oct 6, 1809. M. W. ANDREWS.

1st. In the course of your practice, did you ever meet with any unpleasant symptoms that you could attribute to vaccination? If you have, what were they?

2d. Are you aware of any unpleasant occurrence that has taken place in any of the patients you vaccinated, immediately after, or at any subsequent period? If so, what is it? and can you attribute it to that cause?

3d. Do you believe the epidemic that was so prevalent here in 1808, to have been the measles? or do you consider it to have been an eruptive complaint induced by vaccination?

4th. Do you recollect if any persons you vaccinated had the measles afterwards? If so, did they appear to suffer more, or were they in greater danger on that account? or did the proportion of bad cases of measles, appear to depend upon that cause?

5th. About what number of persons have you vaccinated since 1803?

Here follows Dr. Gourlay's answer; Dr. Antonio C. de Fretis's answer, and Dr. Angelo Curado de Meneges, with translations.

To Dr. M. ANDREWS.

SIR,

In compliance to your request, by favouring you with answers to questions, and such further observations which I have made on vaccination, I hope the following will meet your approbation.

I am, &c.

Funchall, Oct 6, 1809. W. GOURLAY.

In reply to your first and second questions, I do not recollect of meeting with any unpleasant symptom of consequence,

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quence, which I could attribute to vaccination; nor am I aware of any unpleasant occurrence, either immediately after or at any subsequent period, which I could ascibe to that cause.

In regard to your third question, I am of opinion, that the epidemic which was prevalent here last year, was measles; the eruption not induced by vaccination; and which had been imported from England by a detachment of the 11th regiment; the nature of which I refer to a work which will soon be published, "Observations on the endemial and epidemial diseases in Maderia, &c."

In answer to your fourth question: Numbers of those persons whom I had vaccinated, laboured afterwards under measles; but I am not sensible that they suffered more, or were in greater danger on that account; nor did the proportion of bad cases appear to depend at all on that cause.

Your fifth and last question I have to reply; that to the best of my remembrance, the number of persons I have vaccinated, have not exceeded four hundred.

From Dr. ANTONIO C. De FRETIS.

(Translation.*)

THE practice of Vaccination, which, since the year 1805, has been exercised in this island to the greatest extent under my direction, and assisted by the government, agreeable to the orders of H. R. H. to make it general in this colony, enables me to answer the questions which you have proposed, with propriety and correctness.

In the year 1805, not less than 2000 persons were vaccinated by me, and those people whom I delegated for that purpose in the different parts of the island, without the loss of one; nor have any subsequent symptoms appeared after that operation, which have made me repent the practice.

In the greater part of those vaccinated, the eruptive fever was scarcely perceptible; some few experienced a slight degree of weakness for a day or two, others continued in their ordinary occupations during the whole course of the complaint, almost insensible to its effects on the constitution, nor did the eruption extend itself beyond the inoculated part, except in one child, seven years old, who had a tolerable smart fever, and had 25 eruptions in different

* The original is transmitted to the Editors.

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ferent parts of its body, each about the size of a sixpence. This child, however, recovered without any further inconvenience.

I inoculated a child, daughter to Sen. Francisco Anacleto Figueirao, lieut. col. in the militia, three years old; she passed through the complaint tolerably well, but on the falling off of the scabs, deep ulcers remained in the parts where the incisions were made, requiring a greater length of time than usual to cicatrize.

A person, of little reflection, would possibly attribute this to the virulence of the vaccine virus, it is therefore necessary to say, that I observed the same circumstance in her sister, who, two years before, had been inoculated with small-pox, and in whose arms very large cicatrices are still remaining.

From what I have related, you will see that the eruptive process has always been mild; that vaccination has not failed in any; nor do I recollect that this operation has been followed by any disease that could be attributed to that as a cause.

Two epidemics prevailed in this colony in the year 1808, introduced by the British troops forming the expedition commanded by General Beresford.

The first, and which spread immediately after the troops landed, was the hooping-cough; this epidemic destroyer of so many individuals in this colony on that occasion, equally attacked those persons who had been vaccinated, and those who had not undergone that operation. Many of those who had been vaccinated recovered, and others who had not, died, as if proving the inverse of what had been asserted, that the fatality was equal with both classes.

The second epidemic was the measles, introduced about three or four months after the former had been got under, by a detachment which came to complete one of the regiments of the afore-mentioned expedition. Some of the children with this detachment when they landed, were said to have the measles, which was confirmed, not only by the army medical gentlemen, but by the resident practitioners. In a short time this contagion spread through the city and its environs; at first the disease appeared in a mild form, but in its progress it became terrible, and its consequences produced considerable mortality throughout the island.

The first family that I attended with this disease, was that of Sen. Antonio José Spinola, Captain in the militia, whose

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whose wife and eight children suffered from it. This lady was the first victim to the complaint.

The eruptive stage passed off without any extraordinary symptoms, and she left her bed, considering herself as perfectly recovered. She attended her children in the complaint for some days, and when it was least expected, had a pneumonic attack, which suddenly terminated in death. She had not been vaccinated; all her children had, and with the exception of *one*, recovered.

About the same time, a Lieutenant of the regular troops, Sen. Joas Bittancourt, a strong, robust person, who had never been vaccinated, received the infection, and went through the disease with the ordinary symptoms, till the eighth day; when considering himself recovered, he left his room. A diarrhœa, however, supervened, and in twenty-four hours he died.

Senhora Donna Maria Antonia Correa, a lady well known in this town for her virtues and benevolence, not previously vaccinated, was attacked with measles; she had the ordinary symptoms until the seventh day, when a diarrhœa came on with such violence, that she was for a considerable time in great danger, and the consequent debility remained so long after the disease was removed, that it was with difficulty her constitution recovered from its effects.

A grand-daughter of this lady, who had undergone vaccination, recovered from the measles, without any unpleasant symptom, and her sister, who had not been vaccinated, also went through the measles without any unusual occurrence. Three sons of Captain John de Fretis, who were vaccinated a short time before, had the measles; two died in consequence of the diarrhœa which supervened, and the other recovered.

I could adduce many other examples, but those I have noticed, are people well known in the island.

By the regiment that landed here to relieve the 11th, who are now serving in Portugal, the natural small-pox was introduced; several children in the eruptive stage of the complaint, passed through the streets without having communicated the disease to any of the inhabitants; this must be attributed to the effects of vaccination, as on the former occasion, when the small-pox was introduced, it spread rapidly through the whole island.

From what has been said, we may infer, 1st. That vaccination appears to have rendered the inhabitants of this island

free

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free from the contagion of the natural small-pox; which was recently introduced by the present garrison.

2dly. That it has not produced any bad consequences either immediately after, or at any subsequent period, (up to the present date,) to those persons who have regularly gone through the process; and,

3dly. That the epidemics did not attack those who had been vaccinated with more violence, than those who had not undergone that operation.

I am, &c.

ANTONIO C. De FRETIS.

To Dr. ANDREWS.

(Translation.) The original with the Editors.

DEAR SIR,

In consequence of the irregular manner in which vaccination has been practiced in this island, it will not be in my power to give you such satisfactory answers to the questions you have proposed as I could wish; the following, however, are such as occur.

1st. I have never met with any unpleasant symptom in my practice, that could be attributed to vaccination.

2d. I do not remember having seen any of those bad consequences that have been imputed to vaccination; I have only met with three or four children, in whom an itchy cutaneous eruption, somewhat resembling urticaria, appeared about ten or sixteen days after vaccination, but which easily yielded to simple diaphoretic medicine. These exanthemata have been commonly considered as the effects of cow-pox, but I by no means think so. One of the children was teething, and the others had been subject to cutaneous eruptions before*, but in a mild degree; and the parents are not the most healthy. Besides which, cutaneous diseases are very common in many families of this island.

3dly. The epidemic which prevailed here last year, and which was brought by an English ship, had the Nosological characters of the true measles, resembling those that prevailed about the same time in England and Scotland, as described by Dr. Ferguson in the Medical and Physical Journal,

* Two of those alluded to by Dr. C. the one that was teething, and one of the others, I vaccinated, at which time the eruption was out; one of them was vaccinated twice, before it took effect.

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Journal, No. 123. Independent of which, the first people whom I saw in the complaint, had not been vaccinated; many people of 70 years of age, who had before escaped the infection, and on that account supposed they had gone through the disease, on this occasion suffered much.

4thly. Many children, who had been vaccinated some years before, and others a short time previous to the epidemics appearing, also had the measles; some of these dangerously, but by far the greater number had the complaint in a very mild way. The worst kind of measles, and the greatest mortality, were to be met with amongst the poorest people.

I attribute this to their situation, not having the means of supplying themselves with medicines, and a proper diet; and also to the indiscreet religious maxim, which teaches them to consider the death of their children in their infant state as a great blessing.

5thly. I cannot with exactness say the number that I have vaccinated, having sent the greater part of those who applied to me, to be vaccinated by Sen. Antonio da Silva Silveira; who, from 1804 to the present date, has vaccinated more than four thousand.

I am, &c.

Dr. Joas Angelo Curado de Meneges.

I also wrote to Mr. Woolriche, surgeon to the forces, and principal medical officer in the island, requesting such information on these subjects as his situation enabled him to afford me. To which I received the following answer.

To Dr. ANDREWS.

Dear Sir,

In answer to your inquiries relative to the progress of vaccination in this garrison, and the nature of the prevailing epidemics of last year, I shall shortly state what I happen to know on the subject.

Soon after the arrival of the British troops here in 1807, the vaccine virus was procured from England; from neglect, or bad arrangement, it soon was lost, and several months elapsed before a supply could be procured; subsequently, however, it was employed with so much industry and success as to include, I believe, nearly all that were liable to receive the variolous infection*. The Portuguese physicians

* In the families of the Military.

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physicians too, appear to have been active, as a circumstance I shall mention immediately, strongly proves.

That the prevailing epidemic of last year was measles, I have not the slightest doubt; the cases I saw were clearly marked; in many instances, the pulmonary affections were very severe at the beginning of the disease, and obstinate bowel complaints, with bloody stools, were common at the termination of it. If there could be a question on this subject, the way in which the disease was introduced, I think would decide it. Early in May 1808, a detachment of the 11th infantry arrived from England; amongst the sick some cases of measles were reported; circumstances, however, rendered it necessary to empty the transport immediately, and the disease was established in the island. What I alluded to above, as proving the extent to which vaccination has been carried here, was the arrival of the 2nd Royal Veteran Battalion in June last, having amongst their children several cases of small-pox, which were landed without my knowledge; my anxiety was excessive, on meeting some days afterwards in the street, one of the children covered with pustules; it seemed too late to do any thing effectual, and in fact, nothing was done to prevent the spreading of the disease.

A younger sister of one of these children was afterwards attacked, she had an extensive eruption of distinct pustules, and here the disease ended, as far as I know, not having heard up to this date of any other case; a tolerable satisfactory proof, I think, of the activity of the medical people here, and of the efficacy of vaccination.

I am, &c.

S. WOOLRICHE, P. M. O.

Funchall, Oct. 19, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE paper inserted in the Medical Journal of last May, on the virtues of cobweb, having, as it appears by some of your subsequent numbers, excited the wit and provoked the ridicule of some of your Correspondents, I am now, I believe, in the act of opening a new field for their raillery, if

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if you think proper to give the following communication to the public.

In the year 1800, when I was in Guernsey with the Russian auxiliary troops during their cantonment in that island, happening one day, in company with Dr. Walters of the British Hospital staff, to pass an old man on the road, who made an obeisance to the Doctor of more than usual respect, the Doctor mentioned to me casually, that the person, when nearly blind, had some time ago recovered his sight, by drinking a strong infusion of the herb eye-bright, which had been recommended to him by some of the neighbouring peasants. The fact was distinct, and the person who reported it was a man of the strictest veracity. I noted it down, but made no application of it till about three years since, when a woman at Stockton upon Tees, applied to me for advice on account of dimness of sight, rendering her almost unfit for her business, which was that of a house servant. She judged indistinctly of place and distance; and objects were, in fact, so obscure to her, that she scarcely discerned the difference between a knife and a fork as they lay upon a table. She was about thirty years of age; of a slender form, and, exclusively of the defect in vision, not in perfect health. The eyes were dim and filmy, but without pain or inflammation. I gave her a prescription, which was sent to the apothecary; and I further desired her to procure some eye-bright, and to drink about half a pint of the strong infusion morning and evening. I was not, I must confess, very sanguine in my expectations, that what I had ordered for her would do her much good; and I was therefore the more surprised to find, when I enquired for her about a month afterwards, that her sight was perfectly restored. The eyes were now bright and clear, and the general health was comparatively good.

I ascribed more to the eye-bright in the case which I have now stated, than to the other parts of the prescription; and the detail which I am now about to give of its effect on my own person, confirms me in my opinion. I am now on the verge of sixty, and have used spectacles for the last eight years. My sight was originally good; but it has declined so fast, that my spectacles are already of the fourth sight; and I could not, twelve months since, make out a paragraph in a common news-paper without their aid, scarcely even read a passage with the naked eye in books of the best type. I remembered what had been told to me by Dr. Walters, respecting the eye-bright,

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and thought I saw the report of its virtues verified in the case which has been noticed above; but I was desirous of further information on the subject, and for that purpose consulted the dispensatory. I there found that eye-bright had been recommended by Hildanus in strong terms, but that it was now generally, and according to the writer of the dispensatory, deservedly neglected. The dimness of my sight was a serious inconvenience, and its rapid progress in decay was rather alarming. The eye-bright presented itself to me daily last autumn, as I walked in the fields or lanes near my habitation; and I was thus, perhaps, urged by the frequent presentation to make an experiment which might decide, whether Hildanus and the vulgar, or Lewis and the faculty, were the best authority. With this view, I made a strong infusion from the dried leaves, and drank about half a pint of it at bed-time, and the same quantity early next morning. About one o'clock of the day, as my eye fell accidentally upon a news paper which lay on the table, near which I sat, I found it legible. I was struck with surprise; for, the day before, I could not have made out a single paragraph of it in any light in which it could have been placed. There was no visible cause to which the effect I have now noticed could be possibly assigned, except the eye-bright. It appeared to me to have begun an improvement, and I continued it three days longer, in expectation of further progress. At the end of three days, I could read the small army list, but not without difficulty. I then left it off, and at the end of a fortnight, my sight had so much declined, that I could scarcely make out a name in the army list, and I could not even read the news paper with satisfaction. I had recourse to it again, and continued it for six successive days; at the end of which, I was able to read the army list in a good light, and books of common type with facility in common light. I have repeated the experiment frequently, and always with similar effect.

My sight is renewed by at least three degrees, according to the measure of spectacles, since I commenced the use of the eye-bright; and though the clearness of vision declines after a time, it has not, even after the interval of a month, so far declined as to render spectacles absolutely necessary for common reading, though having been accustomed to read and write by their assistance, I still continue the habit. But besides the improvement, in so far as respects vision, the condition of the eyes is in other respects greatly more comfortable than it formerly was. Before I had

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had recourse to the eye-bright, my eyes were frequently hot and painful, particularly in the evenings; the ball, when pressed, seemed flaccid and unequal; vision was often so obscure, that I was obliged to desist from reading, or seek relief in rubbing the eyes, or walking out into the open air; the sudden impression of light was painful, and accommodation to changes slow. At present, the eyes are rarely hot and painful in the evenings; the eye ball, when pressed, is comparatively equal, firm, and elastic; the impression of light striking suddenly is less unpleasant, and the eye more readily accommodates itself to changes than formerly. Under the immediate use of the infusion, and even for some time afterwards, all the objects in nature appear comparatively bright, as if they concentered an unusual portion of light. Vision is not so minute as it was at the early periods of life; but the clearness and fullness of objects, perhaps, as contrasted with the recent dimness and diminution, are singularly striking, and convey very pleasurable sensations.

To the case which I have now stated, and concerning results in which I am not likely to have been deceived, I shall add, that of a respectable farmer in the neighbourhood of Castle Eden, where I resided last autumn. This person had experienced, about twelve months ago, a kind of hemiplegic attack; that is, the muscles of the left side of the face, and of the left eye, were considerably affected; the mouth drawn to one side, the eye staring and distorted. There was besides general numbness in all the limbs; a want of power, but no actual paralysis; the memory was greatly impaired, and the powers of vision was so decayed, that he was incapable of reading a good type even with spectacles of the fourth sight. He was a man of full habit, a muscular form, and naturally of a social disposition. The pulse was tense and strong; bark, wine, and tonics had been ordered for him, and continued for a length of time without benefit; I changed the plan of treatment entirely, and with evident good effect, on the general aspect of the disease. But as vision was particularly defective, perhaps more impaired than any of the other functions, I thought the case a fair one for the eye-bright, the benefits of which I then experienced in my own person. The herb abounded in the fields surrounding his house; and as it was known to him, I desired him to make a strong infusion from the dried leaves, and drink half a pint of it morning and evening. He did so; I saw him a few days thereafter. He was better in all

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respects; but his eye-sight was astonishingly improved. It was nearly as good as it had been before his hemiplegic attack; that is, he could read easily by the help of his spectacles, and every thing around him appeared in his apprehension bright, distinct, and full. He left off the use of the infusion, and after a while, the distinctness and clearness of sight declined; he had again recourse to it, and experienced a similar improvement as at first.

From these facts, I leave it to the public to judge, whether the name of eye-bright has been given to this herb with reason, and whether or not, it is justly discarded from the catalogue of the regular practitioner. I mentioned its virtues to several persons; some tried it, and found benefit from it; others tried it without experiencing any sensible effect. It is perfectly innocent; it is not disagreeable to the taste; it is common in uncultivated fields and lanes, and it so directly renews the eye-sight, and so effectually and so agreeably ameliorates the condition of the stomach, that I cannot refrain from communicating this knowledge of its properties to the Editors of the Medical Journal, in the hopes that some poor man may thereby receive the benefit from it, which I have myself received.

I am, &c.

ROBERT JACKSON, M. D.

January 1, 1810.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

SURGEONS, after describing amputation, as it is most commonly performed by compressing the artery with the tourniquet, mention, where this cannot be had recourse to, the next step is to remove the extremity at the joint; without mentioning those cases which occur, where amputation is required, where no tourniquet can be applied from its nearness to the trunk, and where there is sufficient room to operate without opening the joint. That these cases frequently occur I have but little doubt.

In an attack on the Russian gun-boats, near Fredericksham, on the night of the 25th of July 1809, I accompanied the boats of the squadron under Capt. Pater, which were commanded by Capt. Forest. The force of the English was upwards of three hundred, including officers and men;

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men; the enemy's between two and three hundred. The victory was gained on our side by the loss of 70 killed and wounded. The enemy suffered in killed and wounded, about 100. The wounded English were accommodated on board a transport brig that was captured at the same time, until they were conveyed on board their own ships. This was done early in the morning of the 26th. The greater part of our men were wounded by the enemy's musquetry. One of the men belonging to the Cerberus frigate, had the os humeri broke about its middle by a musket ball. As I considered this a case requiring amputation, so soon as I had examined it, I placed the limb in an easy posture, and accommodated him with a birth, where he could lie horizontally, until he was sent to the care of his own surgeon; which was done in the course of five or six hours after. As soon as the men were sent on board their respective ships I returned on board my own, which was the senior officer's ship; he gave orders that the wounded prisoners should be sent on board the captured brig. There was no Russian surgeon with them. Mr. Noble, surgeon (at that time) of this ship, and myself, as soon as we had accommodated our own wounded men, went on board the brig to dress their wounded, &c. In the operations which were required to be performed, Mr. Noble and myself took our turns. The last man on whom we had occasion to operate, was wounded by a musket ball in the upper part of the arm; the os humeri was splintered. Mr. Noble said, that nothing else could be done here, but to remove the arm at the shoulder joint, and asked me, as it was my turn to operate, which way I intended to perform it? I proposed tying the artery in the axilla as the first step of the operation, and observed, that I thought there was no necessity for laying open the joint, as no extraneous body had already done it. This being agreed to, I proceeded to tye the axillary artery, having taken proper care to dissect it from the brachial nerves; after which I divided the muscles with a common scalpel, one by one, and took up each artery as soon as it was divided; by this means little blood was lost: the bone was then divided with a saw close to the insertion of the capsular ligament, and the integuments were brought over to produce union by adhesion. On the 27th the wounded prisoners were sent from the brig to a house on shore. On the 3d day the wound was dressed; no discharge was found confined, and the appearance clean and healthy. This man walked about from the time of the operation, and had no symptomatic fever;

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his spirits and appetite good. On the 6th day after the amputation he was sent to Russia; at this time the wound was adhering and looked well, with very little discharge.

Mr. Noble and myself went on shore every morning, to attend the wounded prisoners; about the 28th, the surgeon of the frigate came on shore, just as we had done dressing the wounded men; he said the case which is mentioned, belonging to the frigate, he had amputated, and not having room for the tourniquet, he compressed the artery with a key, at the clavicle, and operated below the shoulder-joint, in the usual way as when you have a tourniquet on the limb; that the man had lost much blood during the operation, and was at this time very low. One of the gun boats, on the morning of the 26th, after the action, had gone alongside the frigate, and did not send her wounded men on board the brig, which were fifteen in number, until the surgeon of the frigate had dressed their wounds, and in one case had amputated the fore-arm; in this gun boat, which was alongside of the frigate, one of the Russians was wounded in a way very similar to the case on which I operated near the shoulder-joint, excepting that there was a much larger external wound extending down the arm; I did not see this man until the 27th, when much tension and inflammation had come on. On the day the surgeon of the frigate came on shore, I proposed in this case, that fomentations and poultices should be applied, and when the inflammation had subsided, to remove the arm, which met the approbation of the surgeons. This man was sent soon after to his own country, which prevented the operation. The joint in this case had not been opened by the shot, or the suppuration which followed.

Would it not be best to avoid in every instance opening the joint, where no extraneous body has previously done it, as the cure will be so much earlier accomplished, and the treatment of so many troublesome sinuses avoided? It is not at the shoulder-joint that I conceive this mode of operating will be confined to; a much greater convenience will be found by attending to this, in cases where the hip-joint is not laid open, and the injury so high up, that you have not sufficient room to apply a tourniquet. I know not if any one has ever recovered from amputation at the hip-joint. I have little doubt that it will be admitted, that it is not a desirable operation. Should I meet with a case where a shot has struck the os femoris, and splintered it so high up as not to leave room to apply the tourniquet, and still the cavity of the joint not laid open, I would tie the femoral

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femoral artery a little below Poupart's ligament; cut the muscles through with a scalpel; tie the arteries the same as in operating for the removal of a large tumour, and proceed afterwards as in the common amputation.

I am, &c.

JOHN HOWE,

Assistant-Surgeon on board H. M. ship Princess Caroline, *December* 29, 1809. *Yarmouth Roads.*

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

WHEN the discovery of Vaccination was first promulgated by Dr. Jenner, and very soon afterwards adopted by Drs. Pearson and Woodville in the metropolis, you became its zealous promoters. The first material check given to its progress, arose from the place where Dr. Woodville chose to conduct his experiments. The lymph sent into the country from the Small-pox Hospital, produced the small-pox, or a disease so like it, that the most candid practitioners who employed it, exclaimed, "What do we gain by this new practice?" And if the error had not soon been detected and explained, it would have proved fatal to the discovery. Soon after this, every one who could obtain lymph began to insert it into the arms of the young and old, who were believed to be in danger from the infection of small-pox: and so easy and safe did the practice appear, that no one hesitated to become a vaccinator, or vaccinatrix, for sex and age were not distinguished on this occasion. This was a far more dangerous rock than that on which Dr. Woodville split; for it was with reason apprehended, that cases of failure would not be less numerous than the successful ones. When variolous inoculation was first introduced into this country, the desire of gain, *auri sacra fames*, or at least a desire to *share* in the spoil, induced every one who could procure the means, to become an inoculator; and the consequence, as might naturally be expected, were frequent failures, either in the promised mildness of the disease, or the future protection of the subjects. This new practice, however, was never presumed to be undertaken by any but such as had received some medical education; whereas vaccination, on the contrary, was supposed by many, who undertook to perform

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it, to require no instruction or knowledge whatever. Notwithstanding all these disadvantages, the real failures were comparatively but very few. In this period of progress, an event occurred which might very naturally have been expected; for what happened at Ephesus when St. Paul's preaching began to threaten the craft of the priests of Diana, took place here. As soon as the success of vaccination began to be established, and the tide of popular opinion to turn in its favour, a number of adversaries presented themselves, who did not oppose cool reasoning, or physiological analogies to the new practice, but on the contrary, attempted to work upon the ignorance and prejudices of the lower orders by misrepresentation.

I always admired the concise and pointed observation of Dr. Denman, on the ground which they took to rest their opposition. "All the wit, and all the argument advanced against vaccination, is contained in the word *bestial*."

While, however, I allow that the opposition to Dr. Jenner's discovery was not conducted on physiological, philosophical, or liberal principles, I must still think that your zeal in defence of it, too often induced you to admit harsh or personal observations into your Journal, in reply to those opponents.

No one will deny, that it is very natural for those who have laboured much to bring any discovery, or even produce of nature, to its utmost degree of perfection, to become jealous and irritable, when they think it rudely and improperly assailed; but I cannot admit this as a sufficient defence of your too evident partiality. If your present impartiality should induce you to admit these strictures on this part of your conduct, I may hope you will not object to what follows.

When the alleged cases of failure had been investigated, and were discovered (with very few exceptions) to be misrepresentations, or wilful falshoods; and when public opposition had nearly exhausted itself in the metropolis, the *only* spot in the world, as I am assured, where it acquired any thing like the appearance of force; his Majesty commanded the College of Physicians to investigate the subject, and make their report. The time and attention bestowed on this inquiry, gave it a weight and authority which appears to have silenced all opposition.

I can hardly abstain from expressing my regret at this event, for what before was public and avowed, became secret, or you took advantage of it, to shut the door against, not only all future *controversies* on the subject, but also, as

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I suppose, all future reports and histories, whether favourable or otherwise. If you have actually taken such a resolution, in consequence of vaccination being joyfully and generally adopted in every part of the world; or from any other cause, you will at least permit me to remonstrate against the line of conduct you at present pursue. After continuing for ten years to support, cherish, and defend vaccination, quo jure quâque injuriâ, the moment it is able to go alone, or has acquired powerful protectors, you instantly renounce all care and concern about it, as if you had never laboured to shelter it from the storms by which it had been assailed.

You, who reside in the metropolis, may perhaps receive frequent information respecting the progress of a practice, from which so much was expected, or may perhaps now be realizing; but we who inhabit the distant parts of the kingdom, cannot easily forego the gratification we used to receive from your Journal, on the success attending, or impediments opposed to a discovery of such general concern. We are particularly anxious to be informed whether public opposition to vaccination has really ceased, or is only passed over without notice by you, as unworthy your attention? Whether the zeal in the cause, so conspicuous a year or two ago, still continues unabated? or whether, like the foot-ball, it remains in perfect rest, because no one thinks it worth his while to contend about it? Whether any number of well authenticated failures has damped the ardour of its supporters? or whether government is taking any active steps to propagate and support the discovery? Whether any secret and insidious means are employed to discourage parents from resorting to this mild preventive of a severe and often fatal disease? or, on the contrary, the clergy are advised by proper authority to recommend it on all occasions?

These, Gentlemen, are the leading points on which I and several others in this part of the island are anxious to receive some information; and as we know no channel through which we have a greater right to expect it, or probability of receiving it, than the medium of your Journal, I have ventured to trespass so long on the patience of yourselves, and, if you indulge me with its insertion, that of your readers, very many of whom I may suppose to have the same desire of information on this interesting subject as myself.

I am, &c.

PERCONTATOR.

Aberdeen, Dec. 20, 1809.

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In answer to this Corerspondent, and others who may wish for similar information, the Editors assure them, that they have no intention to desert their favourite subject of Vaccination. For reasons already given in our Journal, communications respecting it will be much less frequent than heretofore, because the necessity for them no longer exists. Every thing either new or interesting shall be given with our usual zeal and promptitude, whether respecting the success, general adoption, opposition, or measures adopted by Government respecting it; and we hope the following document, which we have just received, will be a sufficient proof that vaccination is by no means in a state of inactivity. We are also assured, from the same authority, that very little reluctance against the adoption of vaccination appears in any part of the kingdom, except the metropolis. Printed instructions are given to all medical men, who apply for them, at the Board Room of the National Vaccine Establishment, respecting the progress and appearance of the *regular* vaccine vesicle; varieties not preventing the success of vaccination; irregularities and imperfections which denote the insecurity of the patient; the best manner of vaccinating, and some other subjects of less importance.

COPY of a circular LETTER addressed by the BOARD, appointed by His MAJESTY's Government, to regulate the Affairs of the National Vaccine Establishment.

"To the Governors, Managers, Directors, and Medical Officers of the several public Charities for Assisting the indigent Sick in the Metropolis, and Kingdom at large.

National Vaccine Establishment, Leicester Square, Dec. 10, 1809.

"My LORDS and GENTLEMEN,

"His Majesty's government, under the direction of Parliament, having appointed a National Vaccine Establishment, "for the purpose of rendering vaccine inoculation generally beneficial to his Majesty's subjects;" the Board thereof, consisting of the President and Censors of the Royal College of Physicians, and of the Master and Governors of the Royal College of Surgeons in London, anxious to promote his Majesty's benevolent intentions, most earnestly invite your aid and concurrence in the furtherance of this important object; under the conviction, that the sanction of your approval and support will have much weight upon the minds of the lower orders of the community. They are persuaded, that your influence may be successfully

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successfully applied, so as to effect in a considerable degree the removal of popular prejudices against vaccination, and to favour its progress to universal adoption. The Board therefore solicit your co-operation in their undertaking, in any manner which your wisdom may suggest; but they particularly recommend to your deliberation, *the establishment of gratuitous vaccination, conducted by the medical and chirurgical officers of your institution.*

"In the event of your adopting this plan, the Board will be ready at all times, upon proper application, to transmit to your appointed medical officers, a supply of vaccine lymph; and to attend to any information relative to the cow-pox, which may be deemed worthy of communication. At the same time they beg to signify their opinion, that it would be highly desirable to be favoured with a general annual report of the number of persons vaccinated at your establishment, and of the number of failures in the protection of vaccination against the small-pox, if any such cases should occur; in order that authentic materials may be collected for the formation of further important conclusions. This correspondence with the Board must be carried on by letters addressed to Dr. HERVEY, Register of the National Vaccine Establishment; under cover to the Right Hon. Richard Ryder, one of his Majesty's principal Secretaries of State, &c. &c. &c.

"It may not be unnecessary to observe, that a public notification of your having undertaken the gratuitous vaccination of the poor at your charity, under the auspices of his Majesty's government; and the affixing of such notice to the most conspicuous part of your edifice, would be productive of much advantage, by diffusing the knowledge of the high authority which sanctions the promotion of vaccination, and of the facility with which its benefits may be obtained by your means.

"The Board cannot conclude without again expressing their anxiety, that the proposal of this address may be deemed worthy of your favourable acceptance, and sufficiently important to be carried into immediate execution; as they conceive such assistance essential to the more general adoption of vaccination, at a time when, it must be confessed, considerable repugnance to its reception prevails among the lower orders; and when the increasing extension of the contagion of small-pox renders its antidote more necessary than ever to the public safety.

"By the desire of the Board,

"L. PEPYS, PRESIDENT."

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Dr. Alder's *Proofs of the proximate Causes of Disease from the Practice of Physic.*

(In Continuation.)

Opium. It seems past doubt that opium has done good in the hot fit of an intermittent; and how are we to account for this on any system? We certainly cannot on the Brunonian: but I *by no means* receive that system; I believe it is *full* of error. It is most probable that opium makes the arterial system propel the blood more effectually to the surface of the body, while the relaxation which soon follows, allows it to send off a considerable quantity of its constituent parts by the excretories. Conformably to this, we find, that when opium has done good in the hot fit, its employment has soon been followed by an universal and most copious sweat, which it is clear must relieve the internal parts greatly of their congestions.

Wine. Wine has not that tendency to relax the excretories which opium has, and of consequence does not always seem proper where opium is. It however gives firmness of tone to the arterial system, and by so doing, when the excretories are not shut up, it is in many cases of fever, &c. of considerable service. But we do not in general find wine is proper in bad fevers for removing debility, or in many other fevers, till after the disease has got a turn; that is, till the bowels have been opened, and the blood flows tolerably freely from the veins into the arteries, while the excretories are not at the same time constricted by any inflammatory diathesis. Opium is usually made to precede it, and this takes off any inflammatory diathesis in the arteries and constriction in the excretories. I will not say that wine is useless in all other cases and states of fever than these, because it is given with success where there is any gangrene in the system, or where there is much simple debility, and in some other instances, when it is not always clear whether these states are present or not, and where indeed we must often use it if they are, though afterwards in due time we seek to remove them. And, indeed, in some cases of debility, it will itself make the respiration freer, and must be given for this purpose as well as (which in part follows from this) to make the arterial system stronger; but I mean that the above states should, I think, very often be inquired into, when there is any doubt about giving wine.

Every body knows that wine is good to remove *simple* debility,

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debility, whether this be the effect of a preceding disease or not; but it is *diseased debility*, that is, a debility which forms a constituent part of some disease which occasions difficulties. Debility uniformly follows an impeded pulmonary transmission, and is greater as this is so. This impeded pulmonary transmission, may be with a general check of the whole vascular system (as often happens in tetanus); or it may be with great congestion in the lungs (which almost always is the case in fever); the congested vessels too may be torpid, they may be irritated, or they may be inflamed. In almost all fevers they are torpid for some time at first, but in intermitting fevers most so. In some remittents and ardent fevers very little, and sometimes scarcely at all. In mild continued fevers they continue in a state of irritation a long time; but in many bad fevers particularly in bad remittents, they soon become more or less inflamed. Now debility in all these states must be removed by agents, suitable to the state of the lungs; and wine frequently is not that agent; bleeding often is: but these remedies are not always opposites. Again, when any other vital organ is congested from this disordered state of the lungs, debility may be great, and yet wine will be improper; bleeding often must be used. When the brain is much congested from this cause, an apoplectic state or tendency usually comes on; and this produces a great debility, which we know is not to be relieved by wine.

In cases where depressing passions chiefly act to check the respiration, impede the circulation through the lungs, and cause a febrile state and debility, wine and opium, with pure air and amusements, may give much relief, and these passions often have great share in producing sporadic fevers.

Pure Air. This is the best preventive for fevers we have, and in many cases is the best remedy. But it is evident it cannot with any propriety be used when the congestion on the lungs has gone on to inflammation, or indeed to much irritation, till after this inflammation or irritation shall have subsided.

In the torpid state of the lungs, which occurs in a cold fit, it appears very proper, and has from a few trials been found so. In the sweating stage, and in intermissions and perfect remissions, it seems very proper. And in the latter end of continued fevers, or at least when all great irritation has subsided in the lungs, it appears equally proper, and has been proved so in one or two trials. But, in mentioning trials I have been deficient, for I alluded only to *artificial*

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artificial pure air; and the *natural* has been used in all these cases, in many thousand instances, with great success, while the artificial, in some of them, could be of more use, as it could be made stronger; though the natural in other cases is best as it is always applied, and from being weaker, is not so likely to cause unhealthy irritation.

The mode of action of pure air is peculiarly explicable on my principles, both in doing good and harm; its action either way cannot be explained otherwise than by them.

The Bath. In some cases the warm bath is of service, in others the tepid, and in others the cold. In those dreadful internal congestions (before demonstrated) which so quickly run into inflammation, bleeding and the warm bath may be of use; but the cold cannot, nor wine either, let heat and debility be as great as they may.

The cold bath, like wine, is most suited to mild fevers, and I believe in such, when used according to Dr. Currie's directions, it is a most excellent remedy.

It prevents the blood from hurrying up to the lungs by the veins; diminishes the expansion of this fluid, which is caused by heat; takes off that constriction from the excretories (which was caused by heat (from which perspiration is renewed); gives tone to the vascular system (which, now the excretories are open, is the more useful), and it takes off morbid irritability, and that inquietude of mind which arises from the morbid state which existed previous to its application. Finally, by all these ways it greatly relieves the lungs.

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§. Some other remedies might be noticed, but I believe their *modus operandi* will not now in general be very difficult on the preceding principles. *Smoaking tobacco*, as a preventive of epidemics, is the only one which now occurs to me, that appears to be so. It certainly has been respectably recommended; Diemerbroeck supposes he preserved himself from the plague by its means.

When I was at Cambridge, a short time in the winter 1798-9, several young men there, met in the evening in a convivial party and smoked their pipes, as they said, to prevent catching a fever, which at that time had occasioned several to leave St. John's, and go home; and as they all escaped fever, they might impute their exemption to the use of tobacco, just as Diemerbroeck did: but the fact was, those who escaped bore the proportion of three hundred to one to those who were seized.

The smoke of tobacco, however, is a most powerful agent; and I can readily admit it is efficacious in preventing

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ing some diseases, epidemic, endemic, or sporadic: I mean those of an inflammatory nature, whether they arise altogether from catching cold, or from cold joined with bad air. And many epidemics (even many examples of "the plague," have been much of this kind. Its general use in Holland is supposed (and I think with justice) to have arisen from the people in that country finding that it considerably defended them from injuries from the noxious moisture of the climate; though Tulpius says, notwithstanding, that (which is somewhat in opposition to more recent declarations) most of the bodies which he has opened there, have had ulcers in the lungs. But I do not think it appears, that smoking tobacco is of any use against such fevers, as have nothing of a catarrhal or phlegmonic diathesis joined with them; or (of consequence) against a passive pulmonary congestion; or bad air uncombined with cold moisture, or simply cold. But, on the contrary, I see no reason to suppose it may not often be in some such cases in some degree prejudicial; though on many occasions it will drive the fluids to the surface of the body, and make pure air afterwards have a more pleasing effect.

I have tried the smoke of tobacco upon myself in two opposite states. I tried it once when I had an impeded pulmonary transmission without any inflammatory diathesis, and it made it much worse; it made my respiration and pulse almost cease; and the anxiety and oppression at the præcordia, and the debility, greater. But I have tried it several times to prevent inflammatory affections of the mouth, face, throat, and lungs, with very signal success; and I can recommend it in such cases as a most efficacious article, and the best which I know of. It is not too late to use it, when these affections (except pneumonia) are coming on, and in myself I have removed them by it. Last spring I was seized with an inflammatory affection on one side of my mouth, face and neck, extending to the ear, greatly exacerbated every evening, and then attended with the most excruciating pain. Pains in the face had been slightly epidemic all winter, as well also as a mild influenza. I used laudanum and emetic tartar, with a little temporary relief for six weeks, all that time keeping in the house, and keeping my head wrapt up. At last I had recourse to smoking tobacco on the pained side, till it made me sick, and for the first two or three times acted as an emetic. I particularly used it in an evening, and took tea before it, and a bason of hot water gruel not long after it, and then went to bed. A copious sweat soon broke out,

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ont, and continued very long; I slept better, and in a few days was quite cured of the pains. When they recurred (which they often did) I always found smoking, till I was a little faint, completely removed them, and particularly if I took some warm simple liquid, both before and after. I have been rather minute in the description of this case, as it shews, I conceive, the efficacy of the smoke of tobacco, both in preventing one kind of epidemic (as well as endemic and sporadic diseases) and also in removing some of those excruciating pains in the face, for which the learned Dr. Heberden confessed he could find no remedy.

The action of tobacco in these cases is by relaxing the inflammatory state of vessels, and drivin gcongested fluids to the surface.

§. If I have thus explained the operation of medicines in a just way, according to my theory, I conceive the *practice of physic* affords confirmation of its truth. It has not been here within my province to suggest new remedies or preventives; I had only to ascertain (which by the bye was no easy matter) what were good practices, and what were bad, and then to shew *why* they were so. I am induced, however, to notice, that I think my theory suggests one new remedy, which, *though* simple, seems to me to be of general applicability, and very probably of considerable efficacy, though it may, till reflected on, appear very trivial; I mean, laying much on the left side, in order to facilitate the entrance of blood into the arteries, and particularly when venæsection is used; as this most probably would prevent syncope, which in this case would be highly disadvantageous or dangerous. I say most probably, but I am of opinion, that if bleeding was *proper*, it most certainly would; while at the same time it would greatly impede, and perhaps prevent the pulmonic congestion from forming again, which otherwise might happen in a few minutes; and probably, particularly if the patient was erect, or on the right side, to a greater extent than before; the faintness which many people are apt to suffer from losing only a small quantity of blood, tending to make the pulmonic vessels more inirritable and relaxed.

When speaking of any particular case, it often is exceedingly difficult to ascertain the best practice for it; but how much more difficult must it be to treat of remedies with any certainty and precision applicable to all cases? And supposing a person do this, he will yet be very liable not to be well understood, or misunderstood. I have spoken

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spoken of fevers *generally*; and I persuade myself that I have found it proved from extensive practice, that neither wine nor the cold bath is a general remedy for fever, and that bleeding is; while, at the same time, the cold bath and wine are most excellent remedies for the common fevers of Britain, and bleeding is commonly unnecessary, and often would be prejudicial; but if we take an extensive view, we shall find the common fevers of Britain make an exceedingly small proportion of fever-cases in general.

Proofs from the general Causes of Diseases and of Fevers.

The causes of fevers are the causes of diseases in general. The most general and the most powerful are bad air, and pain, mental or corporeal; though a disordered intestinal canal, however induced, has great effect. Under the term "bad air," I include any kind of atmosphere not sufficiently pure, as one too pure, I think, is no where to be found; whether the impurity of it arise from moisture, from the results of putrefaction, fermentation, respiration, or combustion, or from terrestrial expirations, &c. and whether it be applied sporadically, endemically, or epidemically, singly, or in several of these ways at once, and of one kind only, or of several kinds together. But I have some grounds to hope, that neither epidemic, endemic, nor sporadic kind of bad air, in general, produces much disease by itself; that is, that one of them, in general, either is not sufficiently concentrated, or is not applied a sufficient length of time to produce much disease, without being effected by one or both the other kinds, or by some other cause. Thus we generally find, that very unwholesome bed-rooms, or sitting rooms, houses, streets, towns, districts, and countries, often do not suffer much till an epidemic state of the air comes; and on the other hand we find, that during an epidemic state of the air, those who live in cheerfulness and in dry airy situations and apartments, commonly escape. There have been two or three instances in which this did not *appear* to be the case; but in one of these cases my observation, clearly, certainly is applicable, whatever it may to some *appear* to be, as the bad air in this case was light, and attacked elevated situations, in preference to low ones; and, in the other cases it most probably is so, as a light kind of bad air is a term which conveys nothing absurd. A great part of bad air, however, commonly is moisture, either directly from evaporation, from the ground, or from dews or clouds falling upon

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the ground; and consequently bad air usually is low: it often is so low as to affect most the beasts which graze, and wild beasts in dens, and little animals and reptiles: though on other occasions, it has reached so high as to affect the birds.

THOMAS ALDER.

(To be continued.)

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

MEDICAL Men have, in all ages, been eager to place upon record instances of uncommon formation of parts; and very frequently, have attached more importance to such cases, than in reality belongs to them. Many malformations of the human body are merely curious; and by far the greater proportion of the remainder, afford but very scanty additions to our practical information; and those only through the remote paths of physiology and general reasoning. There still, however, remain a few, the knowledge of which will, sometimes, materially assist us in relieving symptoms, whose causes it would, otherwise, be impossible to understand.

It is true, that, in the case of a new-born infant being incapable of making water, a sensible practitioner would examine the external urinary organs; but, perhaps, if he had not heard of the urethra sometimes being found imperforate, he might not think of such an examination, until other means had failed, which would necessarily involve a certain degree of protracted suffering to the child; on this account, I have thought it would be useful to send you the particulars of such an instance, which happened to me a week ago.

A male child, born on the morning of the 3d of this month, was observed to be very cross on the evening of the 4th, and to suffer from great, though unavailing efforts to make water. The nurse supposed it had heretofore made water at the time it went to stool, from its motions being large and mixed with fluid; so that no idea was entertained of the child having an imperforate urethra. The forcing increased in the night, and on the morning of the

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he 5th, the attention of the bye-standers was drawn towards the external organs, in consequence of the penis appearing much distended; it being, according to the nurse's calculation, as large as half of her little finger, and nearly as hard.

Upon examination, they found a small vesicle projecting at the part where the urethra should have terminated, which soon after, from the child's exertions, burst and discharged a stream of urine with great force; the child was instantly relieved, and passed nearly a small tea-cupful of the natural secretion.

The nurse is positive it was a membrane drawn over the orifice of the urethra, because the distention of the penis had brought the end of the glands nearly on a level with the end of the fore skin, so that she had very little difficulty in completely uncovering the glans.

I am, &c.

H.

January 9, 1810.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE following letter has been inserted in our papers; I am disposed to think, however, that the facts which it contains, deserve a wider circulation than can be given them by a provincial newspaper; should you be of the same opinion, you will perhaps do me the favour to insert them in your Journal.

I am, &c.

CH. CAMERON.

Worcester, Dec. 27, 1809.

AS much unfounded prejudice still exists against the cow-pox, and as inoculation for the small-pox is supposed, with undeviating certainty, to secure the constitution from any future attack of the disease: I beg leave to state the following case, which has recently occurred, as it may tend to remove the objections against the former disorder, and throw some suspicion upon the boasted security of the latter.

John Skyrme, the son of a respectable tradesman in

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this city, 18 years of age, was on Friday, the 21st of October, seized with shivering and other symptoms of fever; on the third day, Monday, an eruption appeared, chiefly about the face and neck. When I saw it, I immediately said, this looks like the small-pox, to which his mother replied, that could not be, as he had been inoculated when he was three weeks old, together with four other children, and two servants, all of whom had the disease, to the entire satisfaction of the medical attendant, who, I may venture to assert, from my personal knowledge of him, could not have been deceived, and all the others (the children at least, of the servants, I know nothing) have hitherto escaped, which probably would not have been the event, had they not had the genuine disease. The disorder has now gone through its regular stages of suppuration and desquamation; and that no doubt might remain, I have requested several gentlemen of the profession to visit him, who are all unanimously of opinion, that he has had the small-pox. This may certainly shake our confidence in the immunity afforded by small-pox inoculation, and the following circumstance may perhaps induce us to place a superior reliance upon the cow-pox. A younger brother was ten years ago inoculated with cow-pock matter, and had the disease in a satisfactory manner, and though he slept with his sick brother every night till Monday, and has had daily communication with him since, yet he has resisted the infection, and continues in perfect health. As this is a curious and instructive statement of facts, I hope you will do me the favour to insert it in your Journal; and in order to obviate the cavils to which an anonymous statement might be liable, I shall authenticate it with the name of,

Yours, &c.

CH. CAMERON, M. D.

P. S. The younger boy still remains uninfected, at which I am not at all surprised, as subsequent to the cow-pox, he was twice inoculated with small-pox matter, which produced no effect, and he has enjoyed uninterrupted and even better health since, than he did previous to inoculation for the cow-pox.*

* The Editors received another copy of this communication from Mr. Bathom, of *Powick*.

To

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

MR. ———, on a visit to this city, received an accidental blow upon the globe of his right eye, which caused him very considerable pain, accompanied with a sense of fulness in that organ; he informed me, that the sense of fulness in the eye-ball gradually increased every day, and that the power of vision diminished as the sense of fulness increased.

On examination, a very considerable quantity of extravasated blood presented itself, effused between the tunica conjunctiva and sclerotica, particularly next the external canthus, occasioned, no doubt, by the blow lacerating some of the vessels, if I may so express myself. I was struck with a beautiful congeries of arteries anastomosing round the ligamentum annulare, sent from the adnata and sclerotica; this inflammation was excited by the violence of the blow. The most particular appearance was the enlargement of the eye; the formation of a tumour by the protrusion of the transparent cornea, caused by an increased secretion of the aqueous humour. The motion of the eye-lid was much impeded, from the circumstance of the distended state of the eye. The above confirmed my first opinion, that this was a clear case of hydropthalmia; and as I considered the sight only to be impaired by the morbid distension, I proposed the operation for the hydrops oculi, before the disease was aggravated so as to burst through the cornea, and totally destroy vision. After fairly stating both sides of the question to my patient, he readily consented to undergo the operation when I conceived it prudent; consequently, the 23d of November was proposed, which was eight days from the time he met with the accident. In cases of hydropthalmia, where there is a probability of preserving vision, I prefer operating with a trocar behind the iris; but when it is to be done merely for lessening the globe of the eye, by discharging the aqueous humour, the knife is, in my opinion, to be preferred, as equally efficacious, and less painful. The head being secured, with my right thumb and finger I steadied the eye, and with a flat lancet-pointed trocar in my left hand, I made an opening in the most convenient part of the tumour, behind the iris; when the end of the canula was sufficiently covered by the tunica sclerotica, I with-

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drew the stilette, and suffered as much of the aqueous humour to escape as was considered necessary.

The operation being completed, my patient was put to bed, laid on his back; the part first being dressed with a compress of linen, moistened with a solution of extract Saturni, and retained by a proper bandage. At night gtt. xl. of tinct. opii were given, in order to diminish pain; a strict antiphlogistic regimen enjoined, with a low diet.

24th. Night passed tolerable easy; removed the bandage, &c.; found inflammation had succeeded to the operation, but in no considerable degree; the same plan was continued.

25th. A restless night; felt darting pain through the globe, with a sensation of dust or other extraneous matter in the eye. I removed the dressing, and found very considerable inflammation, with large distended blood-vessels running in strait lines towards the cornea, particularly on that side next the operation; the largest of these I divided with scissars. After raising them with forceps, applied the same dressings; gave a brisk cathartic, and ordered two leeches to the temple, on the side of the diseased eye.

26th. Expressed himself considerably relieved; had enjoyed a good night, and felt quite comfortable; on removing the bandage and the compress, my patient immediately exclaimed, I can see very well comparatively; the inflammation had in great part subsided; the pupil was distinctly seen, which visibly contracted on the application of light. The same plan, with little variation, was continued for some time; and when the inflammation had entirely disappeared, and absorption of the extravasated blood effected, this gentleman saw nearly as well as ever at the end of three weeks from the operation; and now no defect is visible, except a small mark where the instrument entered.

Remarks.

This case of hydropthalmia was no doubt caused by the violence of the blow, as the disease manifested itself very shortly afterwards, denoted by the symptoms enumerated.

The extravasation of blood was from the laceration of vessels, and the natural action of the eye-lid was impeded by the over-distension of the globe. If this disease had continued, I am of opinion, it would soon have ruptured the transparent cornea, and thereby entirely destroyed the eye.

The only chance of saving the organ was by the operation, and that chance was greater, as there was no previous

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vious disease, and the morbid action then present was so recent.

The operation succeeded beyond expectation, by first discharging the increased contents of the eye; and 2dly, by diminishing the inflammation; and by proper tonic applications, the natural or healthy action was restored, and the functions of the eye happily completed.

G. F. EDWARDS,
Member of the Royal College of Surgeons, London.

Bath, Jan. 3, 1810.

We have been so entertained with the pleasantry of the following short letter, that we insert the whole as received, even with the droll postscript.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

YOUR answer to the letter signed an Old Correspondent, (sent you in October) in your Journal of November, seems to have arisen from a complete misunderstanding of the meaning, purport, and intent thereof. There were no anonymous observations in it upon any gentleman whatever. The inquiry made, both then and in the former letter addressed to you, was simply this, (and which, from your extensive acquaintance with authors, was thought not difficult to be answered by you) where can I find the history of, diagnosis, prognosis, and methodus medendi of a disease I see every month, or nearly so, called Gastrodynia? If any author has treated of it, the gentleman who uses the term, should be respectfully requested to give him to the world; or the term, together with some others, should be given up.

Ecce iterum Martinus Scriblerus.

On the cover of your Journal, this day received, as yet not cut open, I see advertised, a second edition of the New London Pharmacopœia, *revised* and *corrected*. Surely the first cannot *as yet* require *revision* and *correction!* Alas, what am I to do? I have bought the first, and cannot afford to buy the second already; is there no little sheet or list printed of these Errata and Corrigenda, to bind up with the first edition? that's somewhat hard upon us poor fellows, whose guineas and half guineas do not roll in upon us so fast as to require a leather lining to the waistcoat pocket, (a thing I have heard which was formerly much used); no, we must, I perceive, remain in ignorance,

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because we are poor; possibly this new edition may contain a direction how to make the old Sal. Amarus (sulphate of magnesia, I believe it is now to be called) for I cannot find it in the first, nor can I discover it in the list of articles omitted.

In your Intelligence for this month, you mention that common spirit of turpentine has been recently administered, with good effect, in cases of tape worm. I have prescribed it for many years, exactly as there recommended, and have brought away, or caused to be expelled, many feet of that worm at a time. I always took care to ascertain tolerable clearly, and indeed, sometimes with certainty, what the case was before I ordered it. In some cases it has been necessary to guard the kidneys from its effects, by ordering plenty of emollient drinks to be given at the same time. I regret I cannot say where I got the remedy, it was many years ago. I cannot help thinking it was from Dr. Donald Monro's Medical and Pharmaceutical Chemistry.

In a letter I received last week from Edinburgh, mention is made, that Mr. Walker, author of the Archives of Universal Science, has produced a paper, in which he describes a part in the brain hitherto unnoticed and unknown; I hope your next month's Journal will give us some account of it.

I am, &c.

AN OLD CORRESPONDENT.

P. S. Pray do not forget me next month; don't quibble nor mistake my plain meaning, in answer to my former letters, and first part of this.

Remarks on the Infantile Fever, and on the Nature of Fever in general.

THE difficulty of distinguishing the diseases of children was never greater than at the present, owing to the various hypotheses that do but rise to fall, and which serve only to confound the timid and fluctuating mind of the young practitioner. Were medical men to establish theories, by drawing unshaken inferences from facts, instead of accommodating symptoms to any particular hypothesis, which, for the moment, usurps the empire of reason, we should be no longer driven backward and forward on the agitated

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agitated waves of uncertainty. What must be the state of our knowledge, when in every publication on the diseases of children, the symptoms of hydrocephalus acutus and infantile fever are described as being exactly similar; and when black putrid stools are denominated hydrocephalic?

However some practitioners of respectable authority deny the frequency of hepatic affections in this climate, certain I am, they form no small proportion, as well of the diseases of children as of adults; that mercury will cure them, I am equally certain; but whether or no any other article of the materia medica have like efficacy, I cannot from experience determine. No medicine that I have tried has ever been attended with such happy effects, though the cause of such effects, or the modus operandi of the medicine, seems to be involved in obscurity.

When we are called to a child labouring under what is called the infantile fever, we are told that he has been poorly for some days; we find that he has no appetite; his bowels costive; and perhaps there is nausea, or vomiting. The child, if he be of an age to admit of it, will complain of violent head-ache, thirst, and a burning heat of the skin; he will start during sleep, and pick his nostrils. The eyes look suffused and heavy; and the tongue, on examination, will be covered with fur, independently of that whiteness which seems natural to the tongues of children. How are we to account for such symptoms, and consequently, what practice is to be pursued?

The violent head-ache, flushed face, picking of the nostrils, and *starting during sleep,* will, on the first blush of the subject, tell us these are symptoms of hydrocephalus acutus. Having thus discovered what we imagine to be the nature of the disease, we shall begin to deplete with the lancet or leeches, to blister the head, and besides putting our little patient to much unnecessary torture, induce a state of debility, from whence he may never recover; for so important a fluid as the blood cannot be formed without a due and energetic performance of the digestive process; this being put a stop to, the springs of life are dry, the waste of the system goes on, and death ensues from inanition. This description may be said to be too highly coloured; it may be so! yet the leading features of it, I doubt not, have been too often realized in the depletory practice of those who entertain too high an opinion of the lancet.

The next question which naturally occurs, and which

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is by far the most important, inasmuch as it leads to successful practice, is, how are we to account unequivocally for such symptoms? This calls our attention to organs no less important than the brain, I mean the digestive organs. The bowels are constipated; there is no appetite; there is nausea, &c.; appearances manifestly evincing a derangement of the chylo-poietic viscera; but can this derangement account for the prostration of strength, heat of the surface, and the symptoms affecting the head? I think it can.

If we inquire what kind of evacuation the child has had prior to his having any noticeable complaint, we shall be told that it was black, small in quantity, and of an offensive smell; that, in short, it evinced no appearance from whence to infer the presence of bile. This leads us to the source of the disease. From whatever accidental cause, as cold, improper food, &c. the functions of the liver are either suspended, or the biliary ducts obstructed, the consequence is, that the aliment is incompletely digested; fæcification does not go on; the intestines are torpid from the want of their accustomed stimulus; and hence, the want of colour and retention of the fæces. If then the half-formed fæces remain in the intestines, without the addition of bile, they will, from the heat of the body, be in the most convenient situation for putrefaction; which must inevitably take place. The consequence is, that the more fluid parts of this putrid mass are taken into the circulation by absorption; this depresses the system, and perhaps contributes to produce the other phænomena; for if contagious matter, in the form of miasmata, will produce such direful effects on the animal economy, it is but fair to conclude, that putrid matter in its present form or modification will occasion the symptoms in question. Thus, then, we have accounted for the prostration of strength; "that nausea or vomiting takes it rise from thence needs no proof; there existing such a well known sympathy amongst the digestive organs, owing to their mutual dependance on each other."

Admitting this to be true, I think we are justifiable in attributing to the same cause, the alternations of heat and cold on the surface; for that there is direct sympathy between the skin and digestive organs, numerous proofs might be adduced; at present, however, I shall confine myself to a few familiar examples. It is well known that when a person is about to vomit, this organ is variously affected; at one moment the patient is chilled with a sense

of

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of coldness, (the skin exhibiting the appearance called goose-skin); then again, he complains of intolerable heat. Now he is covered with a cold clammy sweat; then a profuse perspiration emanates from every pore. It is equally certain, that in some peculiarities of constitution, the eating of shell-fish and other species of aliment will be followed by an efflorescence on the skin. But here it may be objected, that in the examples I have brought forward the stomach was solely affected; and that as it is an universal sympathizer, it was sufficient to produce such symptoms; this I grant: but if we allow that the primary disease existed in the liver, and that in consequence of such disease, the stomach and bowels were secondarily affected, immediately the objection will vanish, and we shall be no longer at a loss to account for the phænomena in question. Now, with respect to the flushing of the face; those who argue for cerebral inflammation being the proximate cause of fever, will assert, that *this* proves a determination of blood to the head, and from thence they infer an actual inflammation of the brain. The fallacy of this can be easily detected; for as we have just shewn the sympathy between the skin and chylo-poietic viscera, and have proved the cause of the alternations of heat and cold on the surface in general; can we wonder that it here evinces a florid hue, where it is so plentifully supplied with vessels? To say that this was a proof of cerebral inflammation would be tantamount to saying that a transient blush denoted an incipient phrenitis.

The next set of symptoms that need explanation, and which those of the opposite opinion deem insurmountable, I shall proceed to investigate: I allude to the head-ach, starting during sleep, and picking of the nostrils. That pain of the head, starting during sleep, or convulsions, may arise from an affection of the chylo-poietic viscera, can be easily accounted for on the grounds of sympathy. Now the brain being the common sensorium, must sympathize with the rest of the system; that it does so, I need but call your attention to the head-ach and delirium that attend a symptomatic fever, arising from any considerable local injury. If then an injury done to a limb will give rise to such strange affections of the brain and nervous system, a fortiori, the effect must be greater when such important organs as the abdominal viscera being deranged, are the exciting cause. This being granted, we have only to prove a positive affection of the one, and no manifest disease of the other, to establish the point; and here dissection

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section is decidedly in our favour, for we always find after death an inflammation of the mucous membranes, liver, spleen, or any other of the abdominal viscera; while the brain presents an appearance perfectly natural, there existing no sensible change of structure. Dr. Fordyce, and many other physicians of equal eminence, whose extensive opportunities for observation render their testimony unimpeachable, never found any disorganization of the brain in patients who died of typhus fever, while the digestive or pneumonic organs always evinced marks of disease.

As to the child's picking his nostrils, this cannot argue an inflammation of the brain, for as the Sniderian membrane is but a continuation of the mucous membrane lining the alimentary canal, (though it differs somewhat in structure) it is but rational to suppose, that when one part is affected, the other will be affected sympathetically; nor is evidence wanting on this point, for who will doubt the sympathetic consent of the membranes of the nostrils, fauces, ductus nasalis, and eye, when his fauces are irritated by too large a proportion of any stimulating condiment, as mustard, &c.? Admitting then a partial, we cannot hesitate to allow a general sympathy; and the moment this is granted, the fact in question is established, and we at once trace back the symptom to its original source.

Having thus, I trust, satisfactorily proved the proximate cause of the disease, or, in other words, the nature of the disease itself, the indications of cure are obvious, viz. to evacuate the intestines of their putrid contents, and thus relieve the symptoms, at the same time, by inducing a due secretion of bile to prevent their recurrence; that mercury will have these effects when administered early, at least before the absorption of contagious matter has been so great as to render the effects of medicine futile, I shall endeavour to prove by the recital of a few cases.

If we admit this Theory to be true, we cannot wonder that bark, wine, acids, &c. cure typhus; at least, support the sinking powers of the system till the poison has spent its force.

Case I, Nov. 25, 1809. Master C———, æt. 4, having been unwell for some days, complained about midnight of a violent head-ach, thirst, and a burning heat of the surface. I saw him the day following, in the evening; I found him with a flushed face; eyes dull and heavy; head-ach, and costiveness, having had no stool for some days. He has no appetite, and is unable to walk about from pros-

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prostration of strength. His tongue is furred, and pulse quick; but as the circulation goes on with great rapidity in children, I did not attend to the latter symptom.

Mitte hydrargyri submuriatis, gr. v. triturated with an equal quantity of sugar; to be taken immediately: and after two hours, a little of the sulphate of magnesia dissolved in infusion of senna.

I ordered the patient to be laid in a recumbent posture, and the head kept wet with vinegar and water, to cause an evaporation from the surface, fearing from the accounts that are set down in books, an incipient hydrocephalus. The mercury produced evacuations upwards and downwards, the faces were black, and of an intolerably offensive smell. The child expressed himself as being nearly well, and the eyes seemed to have recovered their wonted vivacity.

Nov. 27. Our patient has had no stool, and no return of appetite. Rep. pulvis calomelanos statim. sumendus. This was again productive of the most happy effects; he had several evacuations which gradually returned to their natural colour; and the day following, the child was completely recovered.

Case II. The sister of the above child was soon after affected with the same set of symptoms, and as speedily recovered by the use of calomel.

Case III. Nov. 28. Mr. M's child, aged 3, of an extremely delicate habit, has been indisposed for three or four days, in consequence of having, as they supposed, caught a severe cold. She has violent fits of screaming, starts during sleep, and is incessantly picking her nose. She seems to refer her complaint chiefly to her head; her face is alternately flushed, and pale; the eyes look dull and heavy; and the pupils seem considerably dilated. She has an incessant cough, and breathes laboriously; her bowels have been some days constipated; and she refuses food. Still haunted with the fears of hydrocephalus, I gave directions about wetting the head, as in the preceding cases, previously proposing the application of leeches, and a blister, which, happily for the patient, the parents would not accede to.

Mitte hydrargyri submuriatis, gr. iv. statim sum.; and after two hours, a little of the solution, which indeed, could not be administered.

Nov. 29. The calomel produced four copious, black, and offensive stools. The child seems much relieved, though she still refuses her food, and is incapable of motion; lying constantly on her back. Rep. pulv. calomelanos.

30. The

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30. The stools still evince no bile, but she was able to walk about, and has taken a little nourishment. Rep. pulv. calomelanos.

31. The stools now resumed their natural colour; the cough and difficuly of breathing disappeared; in short, she was *completely* recovered by good diet and tonic medicines.

Case IV. Dec. 10, 1809. I was requested to visit Miss S. æt. 4, who is naturally of a robust constitution, but has been some days indisposed. She complains of a pain in her head, and is unable to move her lower extremities. Her face is flushed; eyes heavy, and pupils considerably dilated. She has had no sleep for some nights; refuses food; and has had no evacuation since she began to be ill. Mitte hydrargyri submuriatis, gr. viij. statim sum.

11. The calomel produced its usual effects; she has had an indifferent night, but is apparently better. Rep. pulv. calom.

12. The stools evinced bile; she could now walk; her appetite returned; and a little of the decoction of bark completely restored her.

I am, &c.

JUNIUS.

January 11, 1810.

To the Editors of the Medical and Phyfical Journal.

Gentlemen,

As the Medical Journal does not reach me till the month in which it is published is far advanced, and as the season is become rather more unhealthy, other engagements press upon my notice, I have not leisure at present to resume the subject of my former communication in the manner I could wish, and must content myself with a hasty reply to the observations made in your last Number, in so far as I find myself immediately affected by them.

I may premise, that I am by no means an enemy to a plan of general and gradual Reform; to use a figure which has of late been much usurped by political writers, such a course of alteratives as will effect a radical change in the body-professional, and render the streams more clear by purifying and improving their source. But in calling myself an enemy to the quackery of corporate bodies, which your

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your liberal and well informed Correspondent thinks is quaintly expressing nothing at all, I mean that kind of quackery which prescribes certain and absolute rules, and precise enactments for remedying certain evils, some of which, if they really exist, are to be referred for their causes to radical defects, out of the reach of legal nostrums. To exemplify my meaning, and that the drift of my argument may be better understood, I would ask your Correspondent, to what we may attribute the great increase of empiricism? Not, I should presume, to want of numbers, nor the want of skill, in the regular practitioners. This subject I know has been amply discussed; but of the causes assigned for this increase, I know of none more weighty than the increasing opulence and luxury of certain ranks of men; the consequent leisure, pusillanimity, and credulity with regard to medical subjects, which are naturally induced in such situations; and the pernicious example of benevolent and well-meaning, but weak and ill-directed people, the Buchans and Bountifuls, who infest the land with their cant, and their small-ware-acts of generosity.

I did not require Dr. Harrison to publish the whole bill, which it is intended to lay before parliament, but to give those who have not had the means of understanding thoroughly what was meant to be proposed, some better information of what they were called upon to pay for; and as your Correspondent asserts, that our gains are few, he will not wonder that we are inclined to ask, *cui bono*, before we open our purses. I am not versed in parliamentary matters, but I have no notion of a thing being unparliamentary, of which that "August Assembly," as yet, has taken no cognizance. The explanation which your Correspondent has given, has certainly obviated some of my objections to the measure; yet still I fear that, at best, it will not answer the expectations of its advisers.

I shall not stop to trace how the present pre-eminence of the law over other professions has arisen, and that we are at present blessed with lawyer rule; if I were, I think it could be proved that such pre-eminence has rather been the cause than the effect of those ordinances, by which your Correspondent thinks its professors have been so much benefitted. The multiplication of laws, the multiplicity of taxes, and the division of property of a mercantile country, all explain why the profession of the law should be more lucrative, and more commanding; and since the faculty of talking is become the road to power, it is not surprising that lawyers should usurp it. But I still maintain

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tain, that in so far as my observation extends, the profession of physic has lost no ground in point of respectability, except perhaps within a certain London circle, where riches have gained a temporary superiority over information and intellect; and that in the part of the country where I reside, my Lady gives her hand at a ball to her medical attendant, with as much respect, and as much freedom, as she does in the sick chamber. As to the remarks of Viator, I presume that the rule of precedence, which he has given upon the authority of the Herald's Office, holds only within the naval and military establishments, where every thing ranks subordinate to the profession of arms; and on board the fleet, I believe, an admiral takes place of an earl. But in society at large, and in promiscuous assemblies, such a degradation of either of the learned faculties is far from being recognised; and in common language, the professions of law, physic, and divinity, still hold an equal rank. If such is the courtesy of the country, as stated by the Herald's Office, doubtless it is given upon the most ancient authority, and is an additional proof of the amelioration of the condition of our profession, which now holds a rank, in common acceptation, far above that it held some centuries ago. The assertion of your Correspondent, that medical men in the country, are the associates of the steward's room, and the butt of the 'squire, scarcely merit notice; for it is, as far as I am acquainted, perfectly unfounded, and is what does not exist, except in some novels and plays, amongst which, ridicule of the learned professions is handed about as a standing dish. Your Correspondent seems also to doub the superior estimation in which medicine is held in this island. I remember a friend of mine, who had travelled upon the continent, once told me, that he always found it more to his advantage to pass for a simple *savant*, than to exercise the right of an M. D. or to be esteemed a physician.

In a moral and political point of view, the ascendancy which the science of medicine and its professors have over the minds of the present enervate generation, is sufficient for its purpose; it is too great, if we may credit the elegant Rosseau. "Cet art mensonger plus fait pour les maux de l'esprit que pour ceux des corps, n'est pas plus utile aux uns qu'aux autres; il nous guérit moins de nos maladies qu'il ne nous en emprime l'effroi. Il recule moins la mort qu'il ne la fait sentir d'avance; il use la vie au lieu de la prolonger. Voulez-vous, trouver des hommes d'un vrai courage? Cherchez-les dans les lieux où il n'y a

point

point de medecins, où l'on ignore les conséquences des maladies, et où l'on ne songe guère à la mort." The immense numbers, particularly of the female sex, who live the slaves of their physicians, and the victims of unfounded apprehensions of disease, almost warrant the conclusion of this strict observer of human nature. I have been led into this digression by the comparison drawn between the relative situation of law and physic. If the former has taken too much hold upon our property and our actions, may not the latter usurp too great an authority over our minds?

To a well digested plan of reform, directed chiefly against empiricism, I have no objection; and it may be extended towards the improvement of the medical school, to the exclusion of ignorance and incompetence there; but for the rest of the profession, I should wish to see it make its own way, and find its own level.

If Dr. Harrison, or any of the projectors of the bill, will assure us of their having provided against the invasion of corruption amongst those from whom authority to practice is to be obtained, and of their lasting competence to the task of judging: If they will assure us that the caprice of individuals, and the caprice of men, will not render restriction nugatory; and that in the lapse of a few years, it will not be found that their laws are binding only upon those who have entered within their immediate limits; I am ready to subscribe my guinea towards the expence of an Act of Parliament; and if we are indeed sunk so low, as not to class with the children of the sister arts, I am willing to concur in any measure which will convince the world, that we still aspire to the situations formerly held by Locke, Garth, and Ratcliffe, and their contemporaries.

January 14, 1810.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN your Journal of last month, (January, 1810) there is a letter addressed to you by a gentleman who signs himself OBSERVATOR, respecting the *hackneied custom*, as he is pleased to call it, of Physicians directing their pre-

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scriptions to be taken to the shop of a druggist to be prepared. I cannot but observe, that this letter deviates very widely from the *liberal principles* which he says many physicians are deficient in. After complaining of the practice of medical men, who direct their prescriptions to be made up by some particular druggist, he says, "for there are physicians who have their favorite houses", And a little farther he adds, "it is not for me here to hazard an opinion as to the motives for so doing." Now, whatever may be this gentleman's secret opinion I know not; but I would ask him, what evil can possibly arise from this practice? If I be not mistaken, it is in many respects greatly advantageous. A man who is constantly in the habit of preparing the prescriptions of some one physician, becomes familiarly acquainted with his writing; therefore, as some physicians frequently write very unintelligible through haste, &c. this man is, doubtless, more capable of knowing the true meaning of his prescription than a stranger, and consequently less liable to error. This is not, I conceive, the only circumstance that ocasions medical men to make use of one particular shop. When a physician begins to practise in public, it is of essential importance that the medicines which he prescrtbes be genuine. In order to render this secure, he looks out for a man who, in his opinion, is qualified, and whose chemical and pharmaceutical preparations are in the highest perfection. This done, he fixes upon him as his compounder; and would it not be absurd for such to be continually changing from one shop to another?

I cannot imagine what Observator can adduce against what he terms, *physicians having their favoarite houses*. He seems to have a particular hostility against druggists, and in his haste to point out their defects, appears unconscious that his own arguments may be applied with equal force against himself. This passage of an ancient author, "Suo sibi gladio hunc jugulo," could never be more justly applied than in the present case. He taxes the druggists with the want of that which I am sorry to say, too many apothecaries are not possessed of, viz. Education. That there are illiterate druggists in many parts of the metropolis, as well as in other places, cannot be denied; but then, are there not many illiterate apothecaries also? I would ask the gentleman, what it is that makes druggists so much inferior? In point of education, one has an equal advantage with the other; and there are thousands who are capable of construing a Latin prescription, who

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who know not the smallest principle of the language. He concludes his epistle with these words: "If accuracy of judgment, genuineness of medicines, &c. be of any importance in the preparation of medical prescriptions, it scarcely needs be mentioned where they are most likely to be combined." Whatever may be his real sentiments of the accuracy of judgment required in compounding medicines, I would, contrary to his insinuation, venture to assert, that from the superior chemical knowledge possessed by most druggists, they are in this case to be preferred. Indeed, the advantages derived by the druggist from his superiority in chemical knowledge, are very numerous; it enables him to know with certainty what effects certain combinations will produce; and as substances, simple in themselves, are known to act upon each other in such manner as to produce the most dangerous poisons, it is obvious that those who are best acquainted with these principles, are the properest to be applied to. His knowledge also of the quality of drugs, and the methods with which he is well acquainted, of detecting any adulteration, is without doubt of the greatest use in discovering the genuineness of medicines; and how many apothecaries there are, who, from a deficiency in this respect, are incapable of distinguishing a good drug from a bad one.

Being impressed with these considerations on reading the very partial letter of Observator, I could not resist the inclination of committing them to paper; and if you will be kind enough to insert them in your useful Miscellany, you will much oblige,

Yours, &c.

A Constant Reader.

January 13, 1810.

*** Though the subject of the above, and Observator's letter, may not appear scientific, yet they are connected with another which we wish to see canvassed on the most enlarged and liberal scale; we mean, that of Medical Reform. It cannot be questioned, that apothecaries and druggists have both acted out of their proper sphere. The apothecaries are become physicians, and the druggists apothecaries. The consequence is, that with most of the rising, and even the passing generations, each branch has been educated with a view to the stations they expect to fill. But as this is not universally the case, both our Correspondents may be right as to individuals. The question,

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however, has quite a different bearing. Whilst the fees of physicians remain as at present, an order of medical men is absolutely necessary to visit the patient frequently in all acute, perhaps many chronic, cases; and the only established mode of payment is by their profit on the medicines. This is only one part of the question unnoticed by these gentlemen; there are many others which will occur to every reader, though our Correspondents, in their zeal or haste, have omitted to touch upon them. EDIT.

Observations on the remarkable Efficacy of Carrots, under a new Mode of Application, in the Cure of Ulcers and Sores. By Mr. RICHARD WALKER.

(From the Philosophical Magazine.)

THE carrot poultice is an application which has been long in use to correct the disposition and improve the discharge of the putrid or scorbutic ulcer.

The manner in which it is usually applied, is by grating or scraping the carrots fine, and laying them on raw.

I have lately had reason to believe, that the effects of it may be considerably increased, by varying the mode of application.

Several cases occurred in the Radcliffe infirmary, during the summer and beginning of the winter last year, of the true, malignant, scorbutic ulcer.

All the common methods of treatment were adopted, and of course the carrot poultice was not omitted.

The inefficacy of it however was too evident.

In consequence therefore of the ill success attending this practice, several of the cases terminating fatally, and as fresh instances were continually occurring, the following change was at length tried, in the use of this remedy.

The carrots being previously cleaned by scraping and washing, were split and boiled till quite tender, in a small quantity of water; the liquor was then strained, or poured off, and the carrots beaten in a mortar, to the consistence of an uniform soft moist pulp.

The ulcers were first washed clean with the liquor rather warm, in which the carrots had been boiled, sometimes fomented with it, and the carrot poultice being previously spread ready, that the sore might be as little exposed to the air as possible, applied cold.

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This was repeated night and morning, and oftener when the quantity of discharge, or other circumstances, made it necessary; but this was seldom required, when the mode above mentioned was adopted sufficiently early; that is, before the sore had made much progress in its scorbutic state.

It scarcely need be observed, that this disposition was known to have taken place, when the ulcer, from being firm, florid, and discharging good pus, became spongy, pallid, and discharged a considerable quantity of a thin, bloody, or gleety kind of matter.

The superior effects of this treatment were apparent in a very short time; in a few days the sores (several of which, before, were spreading rapidly, threatening the lives of the patients) were obviously improved; and in short, without any interruption to their progress in amendment, they were all of them gradually restored to a healthy appearance; and the cure finished, either by a continuance of this, or the methods ordinarily used to sores in a healthful healing state.

In all the cases above alluded to, bark, opium, &c. were as usual administered.

Nothing, however, has been particularly stated with respect to the exhibition of such remedies, as the object of the present paper is merely to direct the attention of practitioners to the use of the carrot poultice, and to recommend, under the sanction of many successful cases, the mode of applying it above described.

Oxford, November 2, 1795.

November 30, 1803.

'Since the above was written, a very considerable number of similar cases have at different times occurred, in which the efficacy of the carrot poultice, applied as above, has been abundantly confirmed; viz. very large sores, chiefly on the leg, extending in some instances from the knee to the

* The antiseptic power of the carrot poultice has been ascribed, I believe, to the carbonic acid gas which the sore is supposed to imbibe from it during its application; hence it might be inferred that the carrot was fittest for use in its raw state.

I am however rather inclined to impute the efficacy of the carrot to its mild anti-putrescent quality, depending chiefly on the pulpy saccharine matter it contains in common with other vegetables, but in greater abundance; meliorated and softened into the fittest consistence by boiling and pounding for application to the tender, irritable surface of ulcers, sores, inflamed skin, &c.

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the ancle, originating from accidental injury, habitual ulcers likewise, surfaces of stumps, and other sores after operations, all having assumed the morbid disposition before mentioned. In every one of these cases, the carrot poultice has been the immediate and constant resource, and with the completest success.*

As the efficacy of carrot poultice in different sores, and the fittest mode of its application, have, occasionally, ever since its adoption, engaged my particular attention, viz. for a period of nearly ten years, I am now enabled to speak more confidently, and with greater precision on the subject, and shall therefore give a more particular detail of every circumstance relative to it; premising in addition to what I have before said respecting that morbid disposition of a sore which requires this remedy, that it is commonly preceded by a more than usual disposition in the sore to bleed on the slightest touch or motion, and very quickly after this appearance the diseased state alluded to follows.

The carrots are now cut in thin transverse slices (instead of being split) for boiling, and the poultice when ready, observing to have it as moist as it will admit of without the inconvenience of its running about, instead of being spread on the cloth, is applied wherever the situation of the part will allow, by laying it on in portions with the hand, filling up first the cavities lightly, and then laying a coating of it about the thickness or rather more than that of an ordinary poultice, over the whole surface, and considerably beyond the edges of the sore; pressing it close, smooth, and of an uniform thickness, quite to the edge of the poultice; otherwise it will become dry at the edge, and occasion some inconvenience in removing, by its adhesion.

The cloth or fine linen is then to be applied and pinned tight over it; and a short roller may be used in order to keep the poultice uniformly close, and prevent it from being displaced.†

The more recently the carrot poultice has been boiled and

* Large wounds and ulcers not unfrequently acquire an ill-conditioned state, notwithstanding the most skilful application of adhesive plaster, requiring a suspension of that mode of practice for a time.

† The method here described of applying the poultice was found convenient in very large sores with irregular surface; but in general it may be applied in the usual way spread on cloth, observing that the fresh poultice be ready to be applied immediately on the removal of the old one.

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and prepared the fitter it is for use, therefore it is best when prepared immediately before using. But as the process of boiling the carrots sufficiently requires some time, enough may be made at once for two or three days consumption, but not longer, particularly in hot weather, when indeed it should be prepared daily; and when it is necessary to warm it for application, this is best effected by placing a bason containing it in a vessel of water over the fire.

It is particularly requisite that the carrot poultice be applied as moist as can be, in order that it may not become too dry by the next time of application.

As many of the cases in which it is applied are those in which the temperature of the body and the sore are considerably above, or hotter than the healthy temperature, particular care should be taken that in such cases the poultice be applied so as to produce in the patient a sensation of coolness; but in ordinary cases, a sensation of warmth.

Most cases require it to be applied twice in the day, viz. every morning and evening; and very few indeed require it oftener.

If the sore should require from its foulness to be washed at the time of dressing, it is best done by squeezing a sponge full of the liquor out of a bason containing it over the sore repeatedly (catching the foul liquor in a bowl) till cleansed; the outside should then be wiped dry to the edge; the sore itself, however, should on no account be touched with the sponge, but be cleansed with lint if necessary.*

The liquor may be that in which the carrots have been boiled, or in defect of that, milk and water or pure water, observing that its temperature be not hotter than the sore can bear with the most perfect ease to the patient. The washing may be omitted unless when the sore is very foul.†

The effect of the carrot poultice thus applied is to correct the fœtor or stench of ill-conditioned sores, and to reduce them to a perfectly healthy or good-conditioned state; moreover to thicken and diminish the discharge as well as correct it; hence it follows that it is particularly indicated in large sores with too thin or too copious a discharge.

When

* This precaution is particularly necessary in putrid cases, to avoid the danger of keeping up or renewing the contagion in the sore.

† It is essential that the sore be as little exposed to the air as possible; hence it is better not to be very solicitous in cleansing the sore, the repetition of the poultice effecting this sufficiently.

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When the sore is found to be sufficiently restored by the use of the carrot poultice, it should be dressed by applying first a single stratum of loosely made lint, not of the close compact kind which is made by an instrument; then a pledget of any common simple cerate, spread fresh and rather thick on fine cloth, if the sore be very large, otherwise upon fine lint, sufficient to cover the edges of the sore completely, and over this a defensative plaster in the usual way of epulotic cerate on tow, with a compress and moderately tight roller. Dressing once a day is commonly sufficient, that is, every morning; but if the sore is large, or whilst the discharge is copious, it is better to dress it twice every day.

If the discharge is considerable, the stratum of dry lint upon the sore may be thicker, that is, in all instances just sufficient to absorb or retain the discharge.

It is not amiss, when the sore is become apparently fit for dressing, to apply one or two poultices more, having a single stratum of fine lint applied as above, immediately under the poultice, and then proceed as before mentioned.

The carrot poultice may be safely and efficaciously applied to sores in a healthful, healing state; but as sores then require pressure by bandage, and other management, known to every experienced surgeon, it is best to stop the use of it at this stage.

Since the effect of this carrot poultice is in a peculiar degree to diminish as well as thicken the discharge of a sore, it should never be used where an increased discharge is required, from mischief being likely to arise by pent-up matter; as when any part becomes swollen or inflamed for want of a free discharge at the sore, in that case a soft emollient poultice, and the practice usual in such cases, must be adopted.*

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* Cases of this kind, in which alone its application is objectionable, cannot be confounded with the dry, foul, or scorbutic ulcer, in which the carrot poultice by correcting the disease promotes a healthy discharge, and separation of sloughs; nor with sloughs arising from various other causes, such as sometimes occur in the course of the cure of gun-shot wounds, burns, &c. in which it is equally efficacious. Unctuous applications to sores of large surface are apt to produce superficial sloughs, which increase, or spread, by continuing the use of such applications—this disposition not unfrequently occurs in extensive scalds. Where such sloughs, accompanied with intensely inflamed edges, are forming from this cause, it is truly astonishing to observe the effect of this specific application in arresting the progress of this disease, by the almost immediate vanishing of the inflammation, the quick separation of the sloughs, and the rapid progress of the sore to a healthy healing state.

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The carrot poultice in this form is applicable to all other species of sore, viz. venereal, cancerous, scrophulous, &c. and will be found, with the aid of proper medicines, the best application for the purpose of keeping the sores in good condition, and healing such of them as are not in their nature incurable.

The carrot poultice as above, is a good application to excoriations of the skin in any part, or from any cause or disease where a thin disagreeable discharge occurs.

In the cases before mentioned, where the carrot poultice is improper from pent-up matter, if the surface of the sore has acquired the scorbutic taint, a thin stratum of the carrot poultice may be applied over that surface, and the emollient poultice* over it, until that disposition is corrected.

The carrot poultice, as may be naturally inferred from what has been said of it, may be applied with singular good effect to a variety of other diseases which produce a thin, hot, acrid humour on the part, viz. ophthalmia, herpes, &c.

In old habitual ulcers, the carrot poultice may be applied at any time when the sore is foul or ill-conditioned; and particularly when such a sore has a dry sordes on the surface, carrot poultice applied thin over that surface, and an emolient poultice over it of bread and milk, never fail to bring on quickly a discharge of good-conditioned pus.

It sometimes happens when a cure is tedious, as in sores of extensive surface, or of a languid or sluggish disposition, that from the mere changing of the application for another a short time, and then renewing the former, the sore will become invigorated and more disposed to heal than before: when this appears to be the case, the intervention of a few carrot poultices will effect it, I think, better than any other application, and hasten the healing of the sore very considerably.

Small obstinate sores in bad habits which resist the usual means, are commonly brought into a healing state by carrot poultice alone, but sometimes more readily when it is conjoined with the use of *hydrargyrus nitratus ruber;* and when such a sore is become clean and florid, the cure may be completed by dressing with a little of the down of lint loosely upon, or in the sore, and the carrot poultice over it.

There

* A poultice of bread and milk is, I believe, much fitter for this purpose than one of linseed flour.

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There is no circumstance in the curative art more lightly, but more erroneously thought of than the healing of sores; this being supposed by many to depend upon the mere circumstance of taking off one plaster and putting on another; whereas too frequently even an apparently trifling sore (not arising from any constitutional cause and consequently requiring no internal medicine) will baffle for a long time the efforts of a skilful practitioner: and, indeed, I am well assured, that very commonly the patient is loaded with bark, &c. to the injury of his health; whilst the sore remains the same, or is becoming worse, till a mode of dressing appropriate to that particular case is hit upon.

Carrots may be procured fit for use all the year round; and though fittest when they have but just arrived at maturity, are nevertheless sufficiently efficacious at all seasons. Or they may be collected at the proper season, and preserved in sand, till the next return of them to a perfect state.

In defect of a pestle and mortar to pound the carrots, a wooden wash-hand bowl, with an appropriately-formed pestle of wood, having its base largely convex, in order to bruise the carrots more readily, may be used in their stead.

Of late years, bark and Port wine have been much more sparingly used in cases of scorbutic ulcers, &c. the carrot poultice, with an ordinary restorative diet, having been found to answer best.

In large sores that require a great quantity of the carrot poultice, the outer part of the poultice may be rather coarse, but that which applies to the sores should in all cases be a perfect pulp.

The only objectionable circumstance, that I know of, respecting the carrot poultice as an application, is its disposition to become dry, particularly when used in small quantities, as in small sores, or when the carrots are not in their most succulent, pulpy state: this circumstance, however, is completely obviated, by applying a stratum or portion of the prepared carrot upon the part affected, and laying a poultice over it of linseed flour, or bread and milk, as the nature of the case may seem to require.

I have been induced to offer these observations to the attention of the public, from a conviction of the utility that may ensue from the knowledge of the efficacy of the carrot poultice, thus prepared, being made general; which has hitherto, I have good reason to think, been chiefly confined to this vicinity; where this poultice is used as well in private practice as in the Infirmary, and with the most eminent advantage.

POSTSCRIPT.

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POSTSCRIPT.

At the time this mode was originally tried here, the usual, and I suppose I may say, the constant practice in surgery was, to apply the carrots raw as before mentioned; this manner of using them being directed in all books of surgery, and the practice of it confined chiefly to the purpose of removing the ill smell or fœtor of sores.

The circumstance that led to it was the extraordinary bad cases above related; which originated in a man who had a very large cancerous sore of the arm, which became so putrid and offensive, as to contaminate, as was supposed, the ward: several of the patients soon after, having sores, some even of a trifling description, which quickly assumed the putrid, scorbutic disposition above described, and several others in succession.

This affair became so serious, that it was thought advisable to have a consultation of the faculty, which accordingly took place.

The result of this was, all medical and chirurgical skill having been exhausted to no purpose, that all the wards should be fresh white-washed, and fumigated;——but still the evil continued with unabating fury.

At this juncture, having observed the effects of the carrot poultice used when raw, to exceed, in some degree, the rest of the various remedies employed, consisting, among others, of the fermenting poultice, so highly esteemed in cases of this nature; I proposed using a poultice made of the carrots boiled, hoping their efficacy might be increased thereby, attending particularly to the process and application myself; the result of which was, as before stated.

The good effects indeed of this treatment were so decided, that, although of sixteen cases which occurred in the course of the year 1794, ten terminated fatally, notwithstanding the most skilful application of the means then in use; there was not one, out of at least the same number of cases, equally dangerous, which presented themselves the year after, but what ended well under this new method.

Since that time this mode alone of applying the carrot poultice has been in use in the Radcliffe Infirmary, not only for the scorbutic or putrid kind of ulcer whenever it occurred, but for all untoward or foul sores of every description.

That the efficacy of the carrot poultice thus modified, is not generally known, even at this time, I can assert with some degree of confidence, having been repeatedly assured

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assured by a professional gentleman, that the carrot poultice, prepared in the old way, is still in general use, and without attributing any efficacy to it, beyond that which was originally allowed to that remedy. It has, however, lately found its way into some publications, but in a very vague and indeterminate manner.

Oxford, Oct. 1, 1806.

*** The above account of the efficacy of carrots, brings to the Editor's recollection, a similar instance of cure performed by turnips, as communicated by a friend. The following is the case alluded to: "A man about 50 years of age, and who had lived irregularly, had been for several years afflicted with ulcers on both legs. They at last extended from the knee to the ankle downwards, the discharge being greater, and the sores worse-conditioned along the shin-bone in front of the leg. When the writer of this article first saw the man in question, he was confined to bed, and had been unable to walk across the room for several weeks: he had been successively attended by all the medical gentlemen of the town in which he lived, and had undergone several courses of medicine with a view to purify the system, but without effect: his sores were dressed with the usual ointments. The application of turnip poultices was suggested to him by a country woman who came into the town on market-days. Her instructions were, that he should night and morning apply poultices of white turnips to the sores, previously bathing them with the liquor, squeezed out when the roots were boiled into pulp. The poultices were directed to be applied hot. The above directions were faithfully attended to by the patient under the inspection of the writer of this article: within the first twenty-four hours, the ulcers had assumed a different appearance, and in about a week from the first application of the turnips, the ulcers were so far healed that the man was able to walk out. In a few days afterwards, the sores entirely disappeared, and the skin soon resumed its usual appearance. During this period, no medicine was taken by the patient; the state of his bowels not even requiring a dose of salts."

To

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE report given of M. Girard's Essay on Tetanus Rabiensis, in page 40 of your last Number, leads me to wish that you would have the goodness to notice, in the way you may think most proper, the view which I took, nearly six years ago, viz. in May, 1804, of the *close analogy between Hydrophobia and Tetanus*; as may be seen by referring to page 94, and 108, 9, of my publication; and to the corresponding places in your Journal, where the two diseases will be found *to be almost identified as one and the same;* the same predisposing and proximate cause being assigned to each, as well as that the proximate effect appeared to me to be the same. This will also be farther confirmed by referring to a passage in page 137, 8 of my work, beginning with "The valuable facts," and ending with "e morsu animalis rabidi being added as a definition." *In this paper you will find hydrophobia denominated "Tetanus hydrophobia, or tetanus rabidus,* e morsu animalis rabidi being added as a definition." This, I presume, is a satisfactory and demonstrable claim to an actual *priority of nearly six years* in these doctrines and opinions, over M. Girard; which cannot, I think, considering how extensively your Journal has all along been circulated, not merely upon the continent, but in every quarter of the globe, be resolved into a coincidence of opinion. But this I leave to your better judgment, in the hope that you would be kind enough to notice it in your next, or the succeeding Number. The profession at large should also be informed, and I know of no method more likely to give publicity to the fact, than for it to be announced in your Journal; that in a case of hydrophobia, which occurred at the Manchester Infirmary in August last, and is briefly noticed at the bottom of page 181 of my work, *the cold affusion was repeatedly used, not only without any reluctance being manifested by the patient, but with evident relief to some of the most distressing symptoms, particularly the aversion and difficulty attendant upon the swallowing liquids, &c.; so much so as to have induced the patient to have called for it to be reapplied before the appointed time.* But though the symptoms were in some degree mitigated, the disease terminated fatally, having advanced to nearly the last stage at the time of the patient's admission,

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admission. The reason these circumstances were omitted in my book is, that I imagined the case would have been published by Dr. Bardsley soon after it happened. Understanding, however, that some time may possibly yet elapse before the particulars will be made public, I have thought it proper to communicate this important fact to you, without meaning to enter any farther into the history or treatment of the disease.

Your very laudable and well known zeal in every thing relating to the interests of medicine, convinces me you will excuse this freedom; in which hope I beg to subscribe myself,

Yours, &c.

Manchester, Jan. 19, 1810. M. WARD.

CRITICAL ANALYSIS
OF THE
RECENT PUBLICATIONS
ON THE
DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

An Essay on the Use of a regulated Temperature in Winter-Cough and Consumptions; including a Comparison of the different Methods of producing such a Temperature in the Chambers of Invalids. By THOMAS BUXTON, M. D. Physician to the London Hospital and to the Surry Dispensary.

IT is now so generally understood that many of our English complaints arise from climate, that we cannot wonder if the means of obviating its inconvenience has very much engrossed the attention of the medical public. Indeed, there is one circumstance which renders the inquiry peculiarly necessary at this time. Such is the state of the continent, that an English invalid can find safety in no part. The island of Madeira seems now the only spot on which the panting phthisic can feel the balmy influence of an atmosphere suitable to the tender state of the lungs. The difficulty of finding accommodations in that highly favoured spot, has long been complained of, and the increased resort thither must greatly out-run the accommodations which the inhabitants are now encouraged to prepare for strangers. Besides this, it neither suits the circumstances nor connections of many, to leave their friends and country. We cannot therefore fail to wish encouragement to every

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every attempt that may relieve these interesting sufferers without the necessity of encountering so many inconveniences and dangers.

On this account we shall follow our author according to the arrangement he has pursued in this useful little performance.

In his description of the winter-cough, we cannot help thinking Dr. B. a little too gloomy, as it is well known there are subjects who have continued through a long life with this inconvenience, and some of them have even apprehended the loss of their cough as the fore-runner of much more serious diseases. However, it must be admitted that such opinions ought not to be encouraged. A cough is certainly *morbus minime contemnendus*, and the neglect of it has been too often followed with all the inconveniences described by our author. The following remarks on inflammation of the lungs occurring in the spring, is sufficiently judicious and pointed.

" Inflammation of the lungs not unfrequently attacks a patient after he has suffered from winter-cough during a longer or shorter period; but generally after the lungs have been much weakened by a cough of considerable duration, and thus predisposed to inflammation. The patient catches cold, most frequently at the close of winter, or the commencement of spring. He feels, in consequence, acute pain in his side, or at the pit of the stomach. He perhaps spits up some blood occasionally, but usually in no large quantity; his difficulty of breathing is excessively great; his countenance is often livid. Sometimes he cannot lie down in his bed, or can lie only on one side. The quantity of phlegm which he spits up is very considerable. In a short time great debility comes on; the cough and the phlegm increase so much that the poor sufferer has no longer strength to struggle with the disease, and dies suffocated. The pain is often not very severe and acute, but rather consists in a sensation of a dull, heavy, oppressive nature, and spread over a considerable space. In this case likewise the cough and phlegm brought up are very considerable, and the debility, quickly induced, extreme, so that the patient's life is very soon destroyed. In the former case it appears that the membrane lining the exterior part of the lungs is the principal seat of complaint; in the latter the membrane lining the ramifications of the air tube. Yet from repeated observations I think I may venture to affirm, that neither of these membranes is in general the seat of severe active inflammation, without causing the other to partake in a greater or less degree of the same. The number of elderly persons who die in these ways is immense. I believe I have never passed a single spring since I began practice, without losing several patients from active inflammation attacking the lungs after winter-cough had some time existed. The patient, in these cases, generally, though not always, dies in a short time after the attack has commenced. These kinds of inflammation appear to me more distressing, both to the patient and to the practitioner, than any other, as the pain, or the oppression, of the patient are most

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most excessively great, the mode of treatment difficult to be decided on, and the success generally (to speak in the most favourable manner) extremely doubtful."

Dr. B. next proceeds to describe general dropsy, and water in the chest, as among the sequels of these complaints, after which he reverts to the causes of the original diseases and their remedies; considering a regulated equable temperature as the principal, and indeed as that without which the others will be altogether inefficient. This is illustrated with a variety of arguments, calculated, as the writer proposes, rather for the public at large than for the readers of our Journal. Several cases follow, related by different practitioners, and by the author, with some further testimonies.

The next consideration is the mode of regulating fire places in such a manner as to produce this effect with the least expence, both in the first fitting up, and in the future œconomizing of heat and fuel. With this view an accurate description is given of the German and Russian mode of heating rooms by stoves; after which the author describes his own plan, which, whilst it equally preserves most of the heat raised by the fuel, admits also some change of atmosphere in the apartment.

"Perhaps, says he, the best mode of showing the practicability of what I propose, will be by giving a description of Miss H's chamber, and of the stove by which it was warmed; as thus the mutual proportions of the one to the other will be immediately perceived. This room is thirteen and a half feet long, twelve feet wide, and eight and a half feet high. A common ironing stove was procured, twelve inches long, nine inches wide, and nine inches high. This, by my direction, was placed as far as it conveniently could be from the walls of the room, in order that every part of the room might be the more equably warmed. It accordingly stood two feet from the chimney-piece, which projected ten inches from the nearest wall. Its distance from the next nearest wall was five feet. A chimney-board was made by a carpenter to fit into the fire-place vertically. In the upper part of this a hole was cut, through which the flue of the stove passed. The stove was fixed so low, that the flue, which had an elbow almost immediately after quitting the stove vertically, then passed nearly, but not quite, horizontally, as it gradually ascended from the stove to the hole in the chimney-board. The stove stood in a flat iron dish, with the rim very slightly raised. This was placed on the floor, and projected for some distance round the stove, to hinder the cinders which occasionally fell out, from setting fire to the boards. I have entered into these particulars, that they may be a guide to any person who wishes to put up such a stove in a chamber. At first some little inconveniencies were found in the management of the fire. But in a day or two these were completely overcome, so that, although the weather during the spring of this year (1809) was very severe, the chamber could always be kept with the greatest ease at a temperature from 60° to 65°. In order that

that this temperature might be strictly preserved, a thermometer was always hung up close to the head of Miss H's bed. Notwithstanding the heat was thus kept up, a person entering the room from the open air, could not perceive any unpleasant, close or confined sensation. It is worth while noticing that, the fire never smoked, a circumstance of some consequence in a sick room, particularly where the lungs are affected.

"From the large heated surface of the stove, constantly surrounded by the air of the chamber, as well as from the distance which the smoke has to travel before it ascends the chimney, a much smaller quantity of heat uselessly escapes up the chimney than in the common English fire-places. Hence we may easily credit, that the part of the room farthest from the stove could be kept at an equable temperature of 60 or 65 deg. The air of the room was constantly changed, although not with the same degree of quickness with which it is changed by the common fire-place; for the opening into this stove is only of sufficient width to let the air enter which is necessary for the fire. A sufficient change thus takes place to keep the air pure in a moderate sized room, without occasioning those strong currents and drafts, so troublesome in our wide open fire-places. But if from accident the air at any time should appear at all vitiated, the draft may easily be increased, and the room ventilated by augmenting the fire in the stove, and opening sufficiently the door or window. The expense attending this kind of stove I have stated at three pounds ten shillings, which cannot be considered as a very extraordinary sum; and the labour of putting it up is inconsiderable. The trouble of preserving the heat of the stove is not greater than that of keeping up a common fire; and the expence is not so great, as it does not consume so much fuel. The principal trouble, attendant on a regulated temperature, is, that some person must look after the fire by night as well as by day. But this trouble is incident not merely to the mode which I am now recommending, but to every mode of preserving the temperature constantly at an equal standard. The plan adopted by the friends of Miss H. was, that some one of the family sat up late, and just before going to bed raised the fire, which occasioned no danger, as the extensive iron plate placed around the stove on the floor, effectually secured the boards from accidents. Another of the family rose early in the morning, and immediately kindled the fire in Miss H's stove. By this management the thermometer rarely sunk considerably during the night, being seldom in the morning much below 60 degrees. But still it must be confessed, that, if practicable, it would be better were the fire kept in during the whole night, as thus the thermometer need never descend lower than the standard; for every degree below that is a deviation, greater or less, from the plan proposed. The expence attending the first establishment of this fire-place I consider as the only additional one, and the trouble of a person sitting up as the only additional trouble. It is true, that in the

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method adopted by Miss H's friends, the plan was not carried to its greatest perfection; but this near approximation was infinitely better than a total neglect of the plan."

The only objection we have to this plan is, that the materials of the stove not being specified, are we conceive of iron, which always produces an unpleasant smell. There is one made of four pieces of porcelaine, placed in such a manner as to form a hollow square, on the top of which is placed another flat piece, as a cover, the whole is bound together by brass hoops. Such a one as this is well known as forming part of the furniture of Sir Joseph Banks's parlour, in which he receives his morning calls, and is so placed that the frequent opening of the door is scarcely perceived. We ought to remark that Dr. B's great attention to economy in the construction of his stove, is probably the only reason why he has not adverted to such materials, as he does not fail to give the preference to the composition of the Russian over the German stoves, because the former are of iron. But we conceive the different expence could not be considerable, where the object, being only health and convenience, the coarseness of the earthen ware would not be an objection.

Edinburgh Journal. No. xxi.

Article 1.—*Medical Report for Nottingham, from March* 1808 *to March* 1809. By James Clarke, M. D. Physician to the General Hospital, and to the Vaccine Institution.

The first part of this paper consists of the epidemic constitution of the air for that period. Valuable as these registers always are, the present contains nothing particularly interesting to the general reader. A case of hydrophobia follows, concluding in the usual melancholy way. The only thing worth remarking is, that though two or three other people were bitten, yet in the course of twelve months, no threatening symptoms had appeared on either of them. In the deceased, no inflammation or uneasiness on the wounded part was ever felt subsequent to the injury. The dog showed no rabid symptoms. Though this seems to excite much surprise and even doubts in some writers, yet it has been very often observed before.

Article 2.—*Observations on Purulent Ophthalmia.* By William Goodlad, Member of the Royal College of Surgeons in London, &c.

Article 8.—*Observations on the Cause of Purulent Ophthalmia of Infants.* By W. Ankers, Esq. London.

Article 9.—*On the Purulent Ophthalmia of New-born Infants.* By Robert Lyall, H. Surgeon.

As this subject has lately been somewhat minutely discussed in both the Journals, we shall offer only a brief statement of the contents of these papers.—Mr. Goodlad goes chiefly to remind us of what has been first remarked as an inference from Mr. Hunter's account of

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of the transplanted teeth, namely, that the healthy secretions of one animal, applied to the secreting surfaces of another, even of the same class, may, in certain cases, become morbid poisons. The paper concludes with proposing a division of the inflamed vessel, as the best remedy. This gentleman also uses fomentation of poppy water; and to the palpebræ, when they continue thickened, applies any stimulating ointment. Mr. Ankers follows pretty nearly the same ground, as to the cause of the disease; and remarks, that having always carefully attended to an early ablution of infants' eyes, immediately after birth, he has never met with a case of purulent ophthalmia in the offspring of females delivered by himself.

Mr. Lyall gives an abstract of all that has appeared lately in Gibson, Ware, Scarpa, and the two Journals. He seems disposed to agree with all, excepting Mr. Simmons, who, by his late communications, does not appear to us at all obstinately tenacious of his opinions. Lastly, Mr. Lyall having admitted all the causes proposed by the different writers, concludes by recommending the remedies of each.

ARTICLE 3.—*Observations on the Fever which appeared in the Army from Spain on their Return to this Country in January*, 1809. By JAMES M'GRIGOR, M. D. Inspector of Army Hospitals for the Portsmouth, Severn, and South West Districts.

FEW papers are so important as reports of diseases and remedies on that scale, which army practice affords; yet of how few are we in possession which add to our stock of real knowledge! Every elder practitioner seems, with a few exceptions, as if relating a muster roll, and the juniors are so full of the success of their remedies, as to deem it unnecessary to *describe* accurately the diseases they *cured*. The paper before us being drawn up by an Inspector of Army Hospitals, might be expected to be free from both these imperfections, and to a certain degree it is less chargeable with them. But Dr. M'Grigor, though we believe an honest man, a well-informed and experienced practitioner, and even in the habit of writing, has not yet acquired the knack of laying statements before his readers, in such a manner, as to preserve a proper interest, by connecting the various facts, nor of course to teach him to derive that practical knowledge which is the main object of all medical reading.

The "Observations" include the practice of not less than a dozen medical gentlemen of different departments; yet so confusedly are they related, and most of them with such brevity, that it will be difficult to form any decision, why some succeeded with remedies altogether different, and others failed, though apparently with a practice similar to their more successful brethren. From the materials, such as they are, we shall endeavour to draw every advantage that the manner in which they are thrown together admits; trusting to the candour of the author and of our readers, if we sometimes seem to infer more than can with certainty be collected

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from accounts, which, in our opinion, the writer has taken too much pains to compress.

Dr. M'Grigor begins by stating the health of the troops in Portsmouth district, before the arrival of the wreck of the Spanish army, and the unfavourable circumstances under which the latter were received.

"The healthy state of the troops, during the winter quarter, as shown by Table No. I.* in the districts where I have the medical superintendence, was interrupted by the arrival of the wreck of our unfortunate army from Spain. The first transports with them arrived at Portsmouth, about the 20th January, when they appeared more the victims of disease than of the sword of the enemy, severely as they had suffereed by that.

"The unfortunate circumstances under which this army was placed, will readily account for the appearance of a mass of disease, and of the worst character. A dispirited retreating army, in which order and discipline, so necessary to its health, were with difficulty maintained, badly clothed, marching over a desolated country, in the most inclement season of the year, was readily predisposed to disease. In their retreat, the British army mixed with, or followed in their route, the remains of that army which the Marquis de Romana had transported from the shores of the Baltic; a fever of the most malignant character had committed great havoc in Romana's army, and the contagion of it was readily communicated, under the above circumstances, to the retreating British army under Sir John Moore. It has been said, that this army had likewise been debilitated by marches, harassing and long, beyond their physical powers; and it is acknowledged on all hands, that they suffered much by irregularities on their march, and an indulgence in intoxication the most disgraceful.

"After the action of Corunna, the army, imbued with disease, some corps more, some less sickly, was thrown on board transports, and mixed together. During the voyage to England, which proved a very tempestuous one, it was not easy to keep up ventilation, and to preserve that state of cleanliness of the persons of the men, as well as of the ships, which is at all times so necessary to the preservation of health afloat.

"Under such an accumulation of misfortunes, it will not appear surprising, that, as it arrived at Portsmouth and Plymouth, every part of the army was found to be unhealthy. It was observed, however, that that part of it which, under General Crawford, embarked at Vigo, was much more healthy than the main body which embarked at Corunna; indeed, the light corps who embarked at Vigo,

* By this table, it appears that the whole number on the sick list, including venereals and slight complaints, was 1644, the strength being 12,284, and the number of deaths from November 6, 1808, to February 11, 1809, was only 25. Ed.

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Vigo, continued tolerably healthy, until, at Portsmouth and other quarters, they mixed with the other divisions of the army.

" It was not, however, only in Spain, or on leaving its shores, so fatal to Englishmen, that Sir John Moore's army was unprosperous. Misfortune continued to pursue them to their own shores. So tempestuous was the weather for some days after the ships had arrived at Portsmouth and Plymouth, that it put a stop to all disembarkation and communication with the shore, while disease was hourly making rapid progress in every ship of a very large fleet.

" But as it is probable that the whole of the misfortunes of this brave but ill-fated army were induced by causes which no human ability could have foreseen or averted, let us not, at this period, attempt to withdraw the veil with which time is fast covering them.

" Would that we could so far profit by them, as in future to prevent their recurrence; or, if such misfortunes are inevitable in the present state of human affairs, at least to mitigate the miseries of the soldier! What could be done by the gentlemen of the medical department in Spain, under circumstances the most arduous, I firmly believe was done; I willingly bear public testimony to the great zeal and humanity of these gentlemen on landing at Portsmouth, as well as of the other medical gentlemen employed to attend a sick army here. Theirs was a service of as real danger as any that had occurred to military officers in Spain; and it is much to be lamented, that so many of them fell a sacrifice to the zealous and unwearied discharge of their duty here."

We shall now endeavour to select such passages as will best mark the character of the fever, particularly as far as it was seen by Dr. M'Grigor himself.

" On the arrival of the first ships, several died in the boats which brought them on shore, and were brought corpses into the hospitals, while the greater part was in the last stage of low fever. It is my duty likewise to mention, that, for some time after their arrival, the relapses, both in dysentery and fever, were extremely frequent; and that, though the conversion of these diseases frequently occurred, yet, as this could not be in every instance ascertained with accuracy, it is not noticed at all in the table. It will be evident, that, if these circumstances were introduced, they would greatly lessen the proportional mortality.

" In the symptoms, the fever which was prevalent, varied much at the different periods at which it appeared, and in the different description of subjects it attacked. At first, in some cases which I saw on ship-board, and in the first cases which were received into the hospital, most of them being in an advanced stage, had the symptoms of what is described a nervous fever, with not a few of the appearances said to denote a state of putrescency, the body being covered with petechiæ, maculæ and vibices, and there appearing (as was reported me) in a few cases, glandular or bubonic swellings. This was the case with those first received into the naval hospitals, into the two hospital ships, into the depôt hospital at

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Hilsea, and at the general hospital at Gosport, particularly with about one hundred cases received there from Hilsea, when this station overflowed.

"In the cases of several officers first landed (I understood that the same had frequently been observed in Spain), the pulse was found but little altered from the natural state, and an inattentive observer would think the patient ailed little; but while there was not great prostration of strength, and even when food was called for, an obscure low delirium might be discovered, with a tendency to despondency and melancholy.

"A prominent feature of the first cases of this fever, which made their appearance on ship-board, or immediately after landing, as well as in those who had been attacked in Spain, was the strong disposition to gangrene in the feet and legs. This was, most probably, induced by the previous circumstances of great fatigue and long marches, undertaken by the exhausted soldier, where, in many instances, he was badly provided with shoes. The tendency to mortification in the sacrum and back was likewise great, and phlegmonous abscesses frequently appeared on other parts of the body. In some cases, erysipelas was seen; but the most constant symptoms in this fever was the great determination to the head and chest, with, in many cases, a torpor of the abdominal viscera.

"The cases which made their appearance while the troops were in harbour here, or immediately after landing, had, I believe, almost universally topical determination, in a greater or less degree; the head was very frequently affected, but more frequently the lungs and pleura. In the progress of the disease, imperfect hearing and bluntness of all the senses were frequently attendant symptoms.

"It was not a little curious to observe the different appearances which, at different periods, in the various subjects of its attack the disease wore. As already mentioned, the cases which were first landed, and they were mostly in an advanced stage of the disease, all appeared to be pure typhus. Those which made their appearance after the ships came to anchor here, whose first stage we had an opportunity of seeing, had a considerable degree of re-action, with generally topical determination.

"The orderlies or attendants on the sick were provided from the 8th Royal Veteran Battalion, or from the regiments of militia in garrison here. A considerable number of these orderlies were attacked with the fever; and in all these corps several cases of it appeared, but with varied features. While the old invalids of the 8th Royal Veteran Battalion, who suffered much by this fever, had it with its lowest symptoms, yet, in almost all of these men, catarrhal or pulmonic symptoms were seen. In the healthy and robust frame of the militiamen, as well as in the men of the German Artillery, the disease, when it appeared, assumed a very different character. They, in the first stage, had always the strongest arterial action, with great determination either to the head or to the chest;

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chest; in many cases bordering closely on pneumonia, where the great and only relief was by venesection and evacuants, the blood, after the second or third operation, always shewing what is called the inflammatory crust."

Such, as far as we can make out, is the result of the author's own observation, or information immediately derived from others. It is not less a matter of surprize than regret to us, that we can no where discover what was the author's practice. It is probable that as he was inspector, the practical part was left to others, but still it was, if not under his direction, at least under his controul, which might have given the best comparative means of forming a true judgment of the result of different methods.

We shall now extract, with as much accuracy as we can, the practice of the other medical gentlemen, in which Dr. Macgrigor is somewhat more communicative.

Dr. Keils, of the King's German Artillery, observed inflammatory action in most of the cases which occurred in the hospital, of that corps. He used the cold affusion, and no fatal case occurred.

"Mr. Fosbrooke, surgeon of the Durham Militia, reports, "that all the cases which he admitted into the Durham Hospital were the synochus, and that some of them closely approached to synocha. They commenced with strong arterial action, the patient having the appearance of inflammation going on in one quarter or other; but after a few days, there appeared a tendency to typhus. When petechiæ were seen, the excretions were scanty and fetid, particularly the alvine; in most cases dark, in some seemingly mixed with blood."

This gentleman reports, that he tried the cold affusion in the Durham Hospital, "that it succeeded in no case; nor was Dr. Hamilton's plan of treatment with purgatives more successful in the hands of this gentleman. Mr. Fosbrooke, with success, gave his patients a combination of calomel with antimonial powder, in repeated doses. It will be recollected, that all the cases in the Durham Hospital had a mixture of pneumonia; and I may here mention, that my friend, Dr. Alley of Cork, has met with the greatest success by using mercurial frictions, in the disease which some have denominated pneumonia typhodes. Nearly two years ago, when this disease and an epidemic catarrh were very prevalent among the troops, I witnessed the great success of some gentlemen who used calomel, or calomel and antimony, so as to affect the gums. I was a few years back led to this practice, by a paper sent me by my venerable and much respected friend, Dr. Wright of Edinburgh."

Mr. Arminger in his report, says, "In the first attack, with extreme langour and lassitude, there were severe aching pains in the head, back, and large joints. As the disease advanced, the temperature during the exacerbation rose very high, (not determined by degrees for want of a thermometer), especially in the cases

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which did not come under my treatment till the third or fourth day of the disease. The heat was pungent, the sensation to the patient, as well as to the observer, burning, in most of the cases pretty equally diffused; but in those in which the determination to the head was greatest, the lower extremities, particularly the feet, were generally deficient in warmth, sometimes very cold. The pulse frequent, and certainly both harder and stronger than in the typhus mitior of Cullen; the urine deficient of high colour, and remaining long unaltered in its appearance; considerable determination to the head, as evinced by fulness and flushing of the countenance; head-ach of the throbbing kind; vessels of the tunica adnata turgid; temporal arteries seem to pulsate strongly; delirium of the more lively kind; increased susceptibility of impression; correspondent impatience and restlessness; want of sleep. When the determination to the head was still greater, it was characterized by drowsiness, stupor, delirium mite; and, in cases which ended fatally, coma, floccitatio, and subsultus tendinum.

Mr. Arminger concludes a very accurate report, by observing, "that during the period of the prevalence of this fever, agues were more frequent;" and he adds, "the majority of the cases of fever which I saw were the synochus of Cullen; but I feel disposed to class some with remittents."

"Mr. Arminger observed, that when mercury was employed, the febrile action seemed to yield as the mercurial action was established."

"This gentleman used purging on the admission of his patients, both to remove the torpor of the abdominal viscera, and to relieve the determination to the head.' Mr. Arminger sometimes used the aspersion with cold water, and sometimes cold affusion. He says, 'that no case proved fatal in which mercury had a fair trial. It seemed to produce great good when the determination to the head induced stupor. In two cases in which the usual means had been carried to their full extent previously to its use, and little or no benefit had been derived, he considered it as the curative means; in several other cases, it was usefully employed as an auxiliary.'

"Dr. Clarke, who had latterly the sole charge of the General Hospital at Gosport, and who at first had the charge of the majority of cases of fever there, writes me, 'that, in the eighty cases under my charge, which came from Hilsea, it appeared pure typhus gravior; but, from what I have since seen, I suspect, that even those cases had, in the beginning, every symptom of synochus. They were of from eight to ten days standing; the symptoms of debility and putrefaction were strongly marked; there were petechiæ or vibices in almost every case.'

"Dr. Clarke says, that on their admission into the General Hospital, every patient was put into a warm bath, and made thoroughly clean; they were then freely evacuated by purgative medicines, and frequently the fœtor of their stools was intolerable. Whenever the heat of the surface was above the natural standard,

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standard, the cold affusion was freely used; this degree of heat was often induced artificially by stimuli given internally. I recollect one case in particular, where, on admission, the pulse was hardly perceptible; the extremities were cold, and the patient appeared to be rapidly sinking. After the warm bath, he was put to bed, and, as deglutition was easily performed, he had stimulants freely given; the pulse then rose; the heat of the surface became intense. In this state, the cold affusion was instantly used, and with the happiest effect; the disease ran its course, but the symptoms were comparatively mild. Wine and other stimulants were given in every instance, so as to keep up sufficient action. This required much attention, as the danger of giving too much appeared in many cases more alarming than the disease.

"There were three very interesting cases among the eighty which I received from Hilsea, which, on their admission, had hardly any marks of vital action; the face, hands, and feet, were livid; the strongest stimulants were in those cases applied, such as general friction with volatile liniment, sinapisms, &c.; internal stimulants, when deglutition was practicable, were also used. Two of these three recovered; but in one of them the toes sphacelated. Of the whole eighty cases, I think four or five died during the twelve days I had charge of them; the others seemed in a state of convalescence; but I believe a few relapses took place.

"The appearances and treatment were much the same on board the hospital-ships; there were but few cases of fever, and I do not recollect one fatal case. In none of these instances was the lancet employed; but I have since used pretty freely, and with success, whenever there is any symptom of local affection, such as pain in the head, thorax, or abdomen, even where the pains in the extremities are much complained of, and the arterial action considerable. In these cases, the typhoid type has seldom appeared, and I am well satisfied of the utility of the lancet in pyrexia, where there is the slightest symptom of local affection. You are not unacquainted with my own case, in which the lancet was so freely used; and I yet reflect on the relief I felt at each bleeding, with gratitude to the able advisers, Dr. Cabbell and Mr. Burnett. I had only once an opportunity of using the cobweb since I learned from Dr. Jackson the extraordinary properties of that substance; it was in the latter stage of chronic dysentery, where there was much anxiety and great irritability; and in that case, it certainly had all the good effects attributed to it by the doctor. The patient became quiet and easy immediately after taking five grains of it."

"Dr. Keating, who was in charge of the Depôt Hospital at Hilsea, to which, as well as to the Naval Hospital, most of the severest cases which were first landed were sent, reports of about two hundred cases which he had, that almost every one of whom came to him covered with petechiæ." This gentleman used cold affusions with cordials, as recommended by Dr. Jackson.

Mr.

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Mr. Foaher of the West Essex, describes the disease as varied according to the subject, and the period at which he saw it. His practice seems to have varied accordingly. The following is all the information we have of the dissection.

"There was some variation in the appearances found on dissection of the dead. I regret that the regulations of the Naval Hospital did not allow our dissecting but a very few of the cases which died there. In all the other hospitals, agreeably to the rules which I established ever since I have had any charge, a dissection was made of every case which died, and, with a very few exceptions, this was done.

"The reports of the dissections made at the General Hospital, under Dr. Clarke and Mr. Aveling, describe in several cases an affection of the brain being observed, the vessels in each hemisphere being found turgid; water frequently in the ventricles; the substance of brain in some case soft and pulpy. On opening the chest, both lobes of the lungs frequently bore marks of previous inflammation; in some cases, adhesions of the pleura, with some water in the pericardium.

"The tenor of the reports made from most of the hospitals was the same; but in those which I have from the 8th Veteran Battalion, West Middlesex, and Worcester Militia, no morbid appearances were seen either in the head or chest."

We shall intermix our remarks with the remainder of our extracts, to render the winding up of the whole as pointed and as useful as we can.

And first, we are extremely glad to find that somebody besides ourselves, is disposed to quarrel with a part of the medical language, which, in the opinion of one of our brother labourers, has been attended with such serious inconveniences.* If it is necessary to give diseases names, they should at least be such as mark one striking character, and we should be careful, that even that name shall not mislead us, by teaching us to look for such a character as in all cases so uniform, and attended with symptoms so correspondent, as in all to require a similar mode of treatment.

It may be said, that fever is a general term, yet we admit of different kinds of fevers, and a different treatment to each.—Time was, when we were satisfied with the term fever, and the immortal Sydenham thought it enough to describe each as it appeared, and to direct the mode of treatment accordingly. But since we have heard of *typhus* as a contagious disease, arising from camps, poor houses, and prison, and also of typhus as the term for the low nervous fever, arising from any cause; what can we expect, but that every low fever will be called typhus, and every typhus a low fever? Hence, should the infectious atmosphere of ships, camps,

* Adams, on "Morbid Poisons," p. 375 and 376.

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camps, or prisons, induce a high fever, we are obliged to halt, in order to determine whether we shall call it typhus, or whether the atmosphere, supposed to be peculiar to typhus, may not induce synochus or synocha, or some other name imposed upon us, whilst we ought to be considering every symptom, tracing every probable cause, and accurately attending to the effect of remedies.

If typhus were to be the general name for every fever, arising from an atmosphere vitiated by confinement of the sick, and for that only, there would be no more impropriety in the use of it, than in the use of variola for small-pox, a disease which arising from the same effluvia, shows different symptoms, and is treated according to those symptoms. But it is evident, that typhus not only implies a fever from vitiated atmosphere, but a fever of a low type. Hence, if such an atmosphere should induce a high fever, either the terms must be abandoned, or the practice must be in direct opposition to the language. Having said thus much, we shall extract a few passages from Dr. M'Grigor's paper in illustration to our meaning, and add some further remarks, which we trust may be useful to our younger readers intrusted with the lives of our brave defenders.

"Though, says our author, as first seen here, when the army disembarked from Spain, the fever had low nervous, and likewise putrid symptoms, and was called typhus, (a term in by far too general use), yet, in most of the cases, it was of a very different type; and several gentlemen were of opinion, that, though in the cases first landed here, the typhoid symptoms were seen, that the disease had commenced with those of a different form of fever. Neither in the case of Dr. Clarke, in that of Mr. Lind, surgeon of the 43d regiment, nor in that of Mr. Foaher, surgeon to the West Essex Militia, was the fever of the typhoid type, though they were attacked with the disease during their attendance on the sick from Spain. In all of them, there was strong arterial action, and great topical determination.

"I have heard, that, in the cases of some other of the medical gentleman attacked, the symptoms were those of nervous fever. I saw that this was the case with Mr. M'Grigor, surgeon of the Military Asylum, who volunteered to act as staff-surgeon here, in Mr. Aubert of the Guards, and in that of Mr. Hawkins of the Oxford Militia."

Of this passage, we shall only remark, that the gentlemen mentioned in the first paragraph, were exposed to the atmosphere of the sick, whilst they themselves were probably in high health, having suffered no previous privations, anxieties, or repeated causes of dejection. As to the gentlemen under the immediate inspection of Dr. M'Grigor, whose symptoms were those of nervous fever, we should have been glad to know whether, like the former, they were exposed to the sick on their first landing, or not till the atmosphere with which their persons and cloaths were imbued, was somewhat less concentrated by exposure to the air, and the

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the cleansing the bodies of the patients; or not till they had been previously reduced by a long attendance on their duties.

"I may in this place," says Dr. M'Grigor, "mention further, that I learn from my friend Mr. Burnett, who superintends the hospitals for prisoners of war in this quarter, that at the same time that our army landed from Spain, many prisoners were brought over, whose disease appeared to be the same fever as that under which our soldiers laboured. Mr. Burnett had frequent opportunities of seeing this disease on a very large scale. It was this gentleman who, in conjunction with Dr. Cabbel, had the treatment of Dr. Clarke, whose case, drawn up by himself, is subjoined. Mr. Burnett says, in a statement with which he has favoured me, "that he has no doubt of this disease having been inflammatory from the beginning. I accordingly treated it with liberal evacuations, and in no instance, when the patient came under my care in his first attack, did I fail of producing a complete remission in twenty-four hours. Though the disease did, in some instances, assume the form of synochus, it was only in such patients as had not been evacuated in the early stage of the disease. *I had about fifteen or sixteen of my nurses taken ill; they were bled to sixty or seventy ounces the first day they complained, and none of them died.*' Mr. Burnett's authority is of considerable weight. The prisoners of war here are seldom under 10,000; and in the hospitals under Mr. Burnett there are seldom fewer than three hundred sick.

"I must not conceal, however, that the fever prevalent at this time appeared with features extremely different in other quarters. In an accurate memoir of Dr. Lemprere's, which he was so kind as to permit me to peruse, I see that the cases received into the Depôt Hospital, Isle of Wight, were pure unmixed typhus."

It is not easy to ascertain the exact situation and description of the other patients; but one thing we may see, that the nurses, who, like the orderlies in the last account, were exposed in a similar manner to the destructive cause, and affected in the same manner, were relieved by the same means.

"In the hospital for the prisoners of war here, [Woolwich,] Mr. Burnett says, "I have had patients sent to me on the 8th or 10th day of the disease, that had been taking bark and camphor, under the idea that the disease was typhus, with high delirium, foul tongue, strong full pulse, and passing their stools and urine involuntarily. I have ordered them a bleeding of twenty ounces, blistered the head, and given a cathartic; and on the following day have found my patient calm, in one case without pyrexia, and, by persevering in this plan, they ultimately recovered. Those who were not bled in the early stage of the disease, were frequently subject to cynanche parotidea, which was always a favourable, though a very painful symptom. I have found it indispensably necessary to attend to the state of the bowels during their convalescence, and their diets required equal attention, as constipation on the one hand, and a full meal of animal food on the other, has, even after

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five or six days of convalescence, induced a return of pyrexia. You will readily recollect our worthy friend Clarke's case, and how fortunately it terminated: you know we were not sparing of the lancet, which I can have no doubt saved his life."

Here we find nothing but bleeding would relieve even prisoners of war. What circumstances gave rise to such high inflammation in such subjects, we cannot learn from the relation, but Dr. Clarke's situation is more easily accounted for; and we shall conclude with the history of his case as given by himself.

"Dr. Clarke's Case.

"First symptoms, lassitude, great prostration of strength, loss of appetite, vertigo, dimness of sight, head-ach very severe, with strong pulsation of the temporal artery, thirst, and every other symptom of pyrexia: bowels, formerly regular, now constipated to a degree, and remarkably torpid. After taking repeated strong laxative and cathartic medicines, without the least effect; at last, by a large dose of jalap and calomel, two or three evacuations were procured, with considerable relief. In a few hours, all complaints increased, and, at my own earnest request, I was bled in the arm; but before sixteen ounces were obtained, syncope was induced. I continued much in the same state; pain in the head, and want of sleep, with extreme anxiety, my chief complaint. Was bled to sixteen ounces this evening, independent of the bleeding on board of ship, and was kept in a constant state of nausea by vin. antim. in frequent doses; this invariably eased my head-ach, but vomiting was once occasioned by it, which exertion brought on such action, that the pain became excruciating, (but very slight, if any, intolerance of light); head-ach continuing very severe, notwithstanding the hair being removed, vinegar and water constantly applied, and a variety of internal medicines; a dose of camphor was taken one night, which brought on great delirium, and much increased pyrexia. At the suggestion and strong entreaty of my good friend and excellent practitioner, Mr. Burnett, I was freely blooded, with almost instantaneous relief. The bleeding was repeated as often as the head-ach returned, and each time with the same good effect. In all, I was nine times bled, of which three were on the 11th or 12th day from the first attack. I lost about 127 ounces of blood. With the exception of the delirium brought on by the camphor, I was quite collected during the whole period, except when I thought I felt disposed to sleep. I then had much watching, and frequent incoherent ideas, but very seldom gave way to them, I mean by making unconnected remarks to the attendants. No low or typhoid symptom appeared throughout the whole course of the disease. In the early stage of convalescence, I was allowed nothing stronger than milk, tea, weak chicken-broth, and the like; nor did I take any thing stronger during the whole length of the disease. For nineteen nights and days, I cannot say I was ever sensible of being asleep, nor could any of the attendants

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attendants ever find me so. Towards the latter end, or from the 12th to the 19th day, want of sleep was the only complaint; and, for several weeks after this period, I never slept above an hour or so at a time. Vertigo continued on the least exertion for some months.

(Signed) J. CLARKE, M. D.

Portsmouth, 20th August, 1809.

We wish our readers to attend to various accounts of cold affusions in the above paper, and to determine for themselves, whether mere heat is a sufficient indication for that remedy, or whether the preparatory steps recommended by Dr. Jackson are not sometimes necessary.

ART. 4.—*Lues Bovina Intertropica, and the Consequences thereof, with Remarks. By* C. CHISHOLM, M. D. F. R. S. &c. &c.

"In the year 1783, in the island of Grenada, in the West Indies, a very singular coincidence took place. Late in that year, the cynanche maligna appeared in several parts of the island, for the first time observed, I believe, by the oldest inhabitant in that or any other of the West India islands. The symptoms of this disease were most violent; its rapidity to a fatal termination most alarming. But the circumstance which gave greatest singularity to this disease, was its concomitancy with a contagious distemper, of a very extraordinary nature (within the tropics) epidemic among the cattle and mules in the same parts of the island, wherein the cynanche maligna appeared. Both were new and unknown, and both were concomitant; insomuch, as to render it difficult to perceive whether they proceeded from a cause common to both, or whether the cynanche was an effect, on the human race, of an imported contagion, which seemed peculiarly, in the first instance, to affect the horned cattle and mules. These animals, while feeding, and apparently in perfect health, in the pastures, suddenly fell down dead. The malignity of the disease had so rapid a progress, that seldom could other symptoms, or rather any symptoms be observed: sometimes, a few minutes before death, the animals were languid, lay down, and neglected their food. Sometimes a swelling of the glands of the throat formed a large tumor, which might be perceived for some days before death; but though this swelling sometimes suppurated, and though the matter was discharged, it never proved critical. On dissection, the whole course of the trachea or œsophagus, the stomach, and greater part of the intestines, were found in an inflamed or a gangrenous state. Various modes of cure were adopted, but, except in a few cases, always without effect. In these few excepted cases, the Peruvian bark, given in very large quantity, seemed to complete a cure; but the use of this medicine was too expensive to render it extensive, and the instances I have mentioned, I believe, were experimental. Methods of prevention were also tried; of these, I was assured, that tar rubbed on the forehead, to the nose, and under the throat, had frequently the desired effect. At this period, 1783, Grenada had intercourse only with some of the other islands

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islands in possession of the French, within the tropics, and with Ostend in Austrian Flanders chiefly, in Europe—there was no intercourse with North America, and none whatever with the Spanish colonies; and, upon the whole, well-grounded reasons exist for believing that the fomes of the bovine pestilence was imported from Ostend, by the Imperial neutral ships which exclusively carried on the only trade the circumstances of the existing war then permitted.

"On those plantations where care was taken to burn the carcases of the diseased cattle, no further consequences resulted. But these unhappily were few. On those where this precaution was not used, and, indeed, it is surprising that it should be used in any, seeing that the disease was new, and its effects unknown, the flesh of the cattle that died being dug up, and eat by the negroes, proved most dreadfully septic, producing a pestilential carbuncle, attended by a malignant fever. There were not wanting instances of the iniquitous practice of offering the flesh of diseased cattle for sale, and on these occasions such was the highly septic nature of this poison, that even touching the flesh, in such manner as that part of the sanies adhered to the finger, produced the same fatal consequence. A remarkable instance of this occurred in a respectable married lady of the island. In the finger to which the virus was thus inadvertently applied, a pestilential carbuncle appeared, and her life was preserved by the amputation of the diseased member.

"This disease, thus originating, was distinguished by the name of malignant carbuncle; and among the French part of the population by that of *Charbon*. The series of its symptoms was thus: Without any previous symptom of disease, the patient complained of a tumor, often in no certain part of the body, but generally on one cheek, resembling the inflammatory vesication which succeeds inoculation for the small-pox. Soon after a fever came on, but by no means violent, and continued during the twenty-four or thirty-six succeeding hours, when it gradually subsided, and left the patient apparently without a single symptom of disease except the tumor. This tumor was nearly circular, had a depression in the middle, and the skin immediately around it was œdematous. At this period, however, in the middle of the tumor, a small whitish carbunle arose, and breaking discharged considerable quantities of a yellowish ichor. But this seeming freedom from disease was, in about twenty-four hours after the eruption of the carbuncle, succeeded by vertigo, a most excruciating pain stretching across the abdomen, accompanied by anorexia, thirst, and palpitation of the heart; the pulse sunk below the natural state; cold sweats broke out; and in short, the patient was carried off in twelve hours after the seizure of these latter symptoms. It is obvious, that the danger of the disease lay chiefly in its obscurity and novelty—for among the negroes more especially, being much subject to sores, sometimes attended with slight symptomatic fever,

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ver, and which were easily cured, no apprehension of fatal consequences, for some time, was excited; and when the second stage or state came on, the administration of the most powerful antiseptics was unavailing. More than half of those thus diseased therefore perished.

"On dissection, the stomach and all the intestinal canal appeared inflamed, and generally covered with large livid blotches; and in the valvulæ conniventes was a considerable quantity of a yellow gelatinous matter. Large quantities of the same matter were found among the muscles of the abdomen, and between them and the peritonæum. The brain and all the other viscera were sound.

"The principal, and indeed only beneficial remedies, were bark and wine, exhibited before the commencement of the second state."

The ingenious author next traces the history given of a similar disease in the island of Barbadoes, first from the account given by the Rev. Mr. Hughes, and next from the information he (Dr. Chisholm) received, when making a tour of the island, from his friend and host Mr. Cummings. All the accounts agree in the contagious property of the disease, and its communication to the human, by eating or touching the flesh of the dead cattle, and, in one instance, by taking an over quantity of the milk from a diseased cow.

Having described, in the above manner, the disease between the tropics, Dr. C. proceeds to trace the similarity between it and the murrain of European cattle. In this he shows equal industry, and having every where written documents to refer to, is much more minute. In the northern disease he discovers two very striking symptoms, unnoticed between the tropics, viz. a pustular eruption on the fifth day as characteristic of the disease, and a peculiar swelling in the part, called by Sauvage the *omazum*, and by Ramazzini *antica parte pectoris*. The part alluded to seems to have been the coat of fat under the integuments covering the parieties of the superior part of the abdomen, or the inferior part of the thorax. By each the tumor is called *anthrax*, but by the latter, on account of its situation, it is also denominated *anticardia*.

Ramazzini, who is much the most minute in his description of the symptoms, is not less so in his account of the appearances after death. He speaks of hydatids in different parts of the body, and also of bladders filled with air, and others filled with serum.

Had this faithful writer been more in the habit of examining the entrails of cattle, he would have found many of these appearances in animals, slaughtered apparently in health. They are therefore no further to be taken into the account, than as they may imply a probability that animals, in reduced health from any cause, may perhaps be more liable to encysted tumors.

But the most important difference in the two is, that if we can

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trust to the above accounts, the tropical disease was communicated to the human, not only by the application of sanious matter, but by eating the flesh of the dead cattle, and, in one instance, by the milk of a diseased cow. Whereas, by the testimony of Goelick and Haller, as cited by our author, and by the silence of Vicq d'Azyr and Dr. Layard, there is every reason to suppose that the murrain did not affect the human race. The opinions of Sauvage, and the imperfect accounts of Lancisi, though tending to a different conclusion, are shown to be very unsatisfactory.

In remarking the difference in the symptoms between the European and intertropical cattle, the author conceives much, if not the whole, may be imputed to the difference of climate: every disease being for the most part more rapid in proportion as we approach the sun. Hence the cattle in the islands died before the full evolution of all the phænomena of the disease. We conceive the different accounts of the contagion reaching the human race, may be explained with still more ease. The accounts of those who perished from eating the flesh, is extremely confused. Perhaps it stands on no better authority than Lancisi's remark, that those men in Rome who ate of the infected flesh were infected with diarrhœa and fever, which is contrary to the testimony of most contemporary writers. That others might be infected by the effluvia, or contact with diseased parts, is not only probable, but an occurrence that might happen under any other local disease, or by contact with flesh in a putrid state from the common process of corruption.

Our industrious author next enters into a long disquisition on the subject of diseases communicated from one race to another, or rather of their existing at the same time in different species of animals. In the account above-mentioned by himself, there was a coincidence of angina maligna and the pestis bovina at Grenada; yet he candidly acknowledges not only the difficulty of tracing on many occasions any immediate means of infection, but even of ascertaining whether the cynanche maligna in the human subject preceded or followed the epizootic malady. That pestilential diseases have at the same time affected various classes of animals and man cannot be questioned; but under such circumstances, there is every reason to suppose that the whole originated in some constitution of the atmosphere, even admitting that the disease became afterwards infectious. The author concludes his paper with the following paragraph.

"Having lengthened this paper much beyond the limits I originally proposed, I shall intrude no longer at present; but as the inquiry involves in it a very curious and important question relative to the influence of the effluvia from dead animal bodies, passing through the natural process of putrefaction in the open air, on living animal bodies, I shall take some future occasion to communicate to you such remarks as have occurred to me on the subject."

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We shall feel our obligations much increased, if Dr. Chisholm will in his future paper, accurately distinguish between diseases communicated by contagion from one race of animals to another, and those which may be imputed to a common cause in the atmosphere, and if in the former he would distinguish such as were excited only by the contact of diseased matter from those which may be imputed to the contact with mere putrid matter. We are aware of the difficulties attending these inquiries, and on that account we impose them with the less reluctance on a writer of some leisure, and of extensive means of information, both from reading and actual observation.

(To be continued.)

Report of the Diseases of Edinburgh for December, 1809.
By JOHN ROBERTON, M. D.

For several days after the commencement of the month the weather was variable, frost and thaw alternating with each other frequently in the course of one day. About the end of the last third of the month, however, the weather became more regularly of a tempestuous nature, and we were, for several days, almost constantly assailed either by hard gales of very cold wind, by falls of snow, or by torrents of rain; at other times all these prevailed at once, forming a most tremendous hurricane.

During the latter half of the month the weather was less tempestuous, but very inconstant. Frost, rain, and slight falls of snow, continued to alternate with each other, till its termination.

The barometer was in general low, especially in the earlier part of the month. During some of the more favourable days, however, nearer the end of it, the barometer, for a few hours only, rose considerably.

The thermometer stood in general about 40, or from that to 45 degrees. The few frosty days, however, which we occasionally had near the end of the month, reduced it much lower.

The most prevalent diseases of the month have been of an inflammatory nature, fevers, croup, and small-pox.

It is almost an universal rule for the greatest inflammatory state of the general system to commence with the cold weather, and terminate in the course of the spring months. Thus various inflammatory diseases exist in various individuals, the same cause producing these different effects; partly from the immediate particular habits in eating, drinking, &c. So far, however, as the winter season has advanced,

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vanced, the usual inflammatory disposition has not been nearly so conspicuously marked as in almost every previous year. To account for this, is perhaps impossible. The weather, to the particular nature of which we have been in the habit of, in a great measure, ascribing these complaints, has not been, in any remarkable degree, different from what is usual at the same period of the season. From former reports also, it will be observed, that last year, after the inflammatory complaints began as usually to abate, they again, even when the warm weather had commenced, became much more general, and in many instances more fatal than even during their prevalence in the previous winter months. It would therefore appear that there are some other causes besides what have been enumerated, tending to increase the inflammatory disposition.

Although, as observed, these inflammatory complaints have not been nearly so general as usual, yet they have not been by any means entirely wanting. In practice we meet with some very severe cases of pneumonia, enteritis, and the inflammatory or first stage of hydrocephalus internus. Catarrh and acute rheumatism are also occasionally met with.

I have seen a few cases of pneumonia of uncommon severity, which were cured only where the most active means were employed. In two of these I found it necessary every day, for ten days, to order large bleedings; blisters over the whole forepart of the thorax, and saline cathartics, to be repeatedly administered. One of these patients recovered completely, the other seemingly recovered, but in a few days effusion of fluid into the thorax and abdomen took place, which, notwithstanding every means that could be used, terminated fatally. The generality of the few cases of this complaint which have appeared here, yielded, with great facility, to the common practice.

Enteritis has, in almost every instance, yielded almost immediately after the effects of a blister applied over the abdomen had been produced.

The first or inflammatory stage of hydrocephalus internus has been more common than either of the two formerly mentioned complaints, but early attention to the state of the pulse and the bowels almost uniformly prevent effusion into the ventricles of the brain. The application of the cap blister, the administration of purgatives till the stools (which as an occasional accompanying symptom of this disease are in general green or black) become

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become of a natural colour; and the application of leeches to the temples, or even, in severe cases, opening the jugular vein or temporal artery, are followed by the happiest effects.

Catarrh, which indeed is scarcely ever absent from this city, has been very common; but, like other inflammatory affections, not very severe. Purgative medicines, bathing the feet and legs in warm water before going to bed, and the occasional use of diluting and mucilaginous drinks, have always removed it. Acute rheumatism has also appeared in various parts of the city, and has been removed by attention to the bowels, by sudorific medicines, and, when the first inflammatory state of the complaint had yielded, by the liberal use of friction with the flesh brush or a coarse cloth. In this, as well as in many other complaints, the applications for its removal are too often, in regard to its stages, indiscriminately applied. Frictions, with heating balsamic substances, are often used from the very first appearance of the symptoms; this, I have no hesitation in asserting, protracts the disease, and not unfrequently contributes to assist the complaint in terminating in chronic rheumatism. Were our dependence, in its early stages, to be placed in cooling laxatives and sudorifics, and when these had relaxed, the application of friction, we should prevent such a termination, and even better effect our purpose in its early stages.

Fevers of the typhoid kind are never absent from this city; and as foulness is the cause of them, the reverse tends to prevent or in a great measure to cure them.

Croup has appeared among children; some cases have been very severe, and have even proved fatal. Like every other disease, this is easily removed when early attended to. Large doses of calomel, with the occasional application of blisters round the throat or over the chest, almost uniformly remove the affection.

The small-pox, disgraceful to state, seems to be gaining ground among us. That mulish stubbornness, which, as in other countries, prevails in no scarcity about this place, is certainly the cause of this. Our countryman, Doctor Smollet, termed this city the hot-bed of genius, but he omitted to state, perhaps from partiality to his own country, that it certainly is a soil much calculated to the production of that obstinacy which is strongly marked among the Scots. This is too often mistaken by my countrymen for independence of thought, while independence of

thought

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thought itself is but rarely felt here. Upon the introduction of any remarkable improvement, such as the cow-pox, or any circumstance where open and liberal sentiment is expected to be expressed, each individual, terrified at hazarding his own opinion, seemingly wishes his neighbour to advance what he has to say; and then, as the majority takes one or the other side of a question, the rest soon espouse the same side. It is this which has retarded many useful improvements, and among others, the universal inoculation of the cow-pox.

Princes Street.

An Account of Diseases in an Eastern District of London from December 20, 1809, to January 20, 1810.

ACUTE DISEASES.		Menorrhagia	4
Typhus Mitior	4	Fluor Albus	7
Pneumonia	7	Diarrhœa	3
Pleuritis	3	Enterodynia	4
Peripneumonia Notha	5	Rheumatismus Chronicus	12
Rheumatismus Acutus	3	PUERPERAL DISEASES.	
CHRONIC DISEASES.		Menorrhagia Lochialis	3
Tussis	26	Dysuria	4
Dyspnœa	10	Rhagas Papillæ	5
Tussis cum Dyspnœa	28	Dolores Post Partum	7
Hydrothorax	3	INFANTILE DISEASES.	
Anasarca	2	Aphthæ	4
Cephalalgia	5	Diarrhœa	5
Syncope	1	Dyspnœa	2
Hysteralgia	1	Convulsio	9
Gastrodynia	4	Vermes	2

The changes in the temperature of the air, which have taken place within the last few weeks, have been very considerable, and in general very sudden. In the course of a few fours, the thermometer has shown a variation of 15 degrees. For a considerable time the wind blew from the west and south-west points, the temperature of the air was comparatively high, and a considerable degree of humidity prevailed.

Those diseases of the chest, which are the usual consequence of the approach of winter, have assumed a milder form, and the disease wore more the appearance of the chronic than the acute species. During this period the cough and dyspnœa, or slight peripneumony of the aged, consi-

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considerably abated. Amongst the instances included in the list, there was one of a man of 96 years of age, who recovered from a peripneumonia notha, and who is now as well as he has been for the last 20 years of his life.

During the state of the weather now referred to, fevers of the low or milder typhous kind prevailed. In one of the cases the disease was protracted to a very considerable length. The subject was a boy 10 years old, in whom the great prostration of strength and low delirium, attended with constant incoherent mutterings, strongly marked the nature of the disease. The weather having undergone so material a change within the last few days, we may expect an alteration in the state of diseases, and that in the complaints of the chest, the more acute and inflammatory species will prevail, attended with an aggravation of symptoms, which, with respect to the aged in particular, must produce considerable alarm.

INTELLIGENCE.

The PHYSICAL SOCIETY *of* GUY'S, *have sent the following* CIRCULAR LETTER *to their* HONORARY MEMBERS, *signed by their Secretary.*

"SIR,

"At an especial Meeting of the Committee of the Physical Society, appointed December 22d, 1809, to consider the best means of furthering the general interests of the Society, and more particularly those of the ordinary Members, it was unanimously resolved, that a circular Letter be sent to all the Honorary Members, soliciting their countenance and support. The Members therefore, who regularly attend its Meetings, and who feel warmly for its improvement, request you would favour them by attending as often as you conveniently can; and by frequent communication of physical news, give energy and importance to its debates. By a perseverance in these means they are convinced you could contribute very materially to the improvement of the junior Members."

HENRY HINDE PELLY, Esq. of Upton, Essex, a gentleman advanced in years, and who used to be laid up annually for three or four months, with a violent fit of the gout, having read in some old book, that a loadstone worn next the skin was a sure preservative against that excruciating disease, and knowing that some of the finest and most powerful magnets are found in Golconda, employed an agent in India to procure him one from that province This stone chipped into a convenient shape, he constantly wears, sewed in a little flannel case, suspended from a black ribbon round his

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his neck next his skin. It is about two inches long, an inch and a half broad, and two-tenths of an inch thick, and its magnetic virtue is very great. It much resembles a piece of slate, such as school-boys learn to cypher on. Mr. Pelly says, that he now and then has some slight twinges, which only serve to remind him of the terrible paroxysms to which he once was subject. He happened one day to omit hanging this amulet about his neck; another and another day passed, and as several years had elapsed without a fit, he began to think that the magnet had altered his system; and rendered him intangible by gout. One night however he awoke in torment; he called for his safeguard, and threw it about his neck; he escaped with a slight attack, and has never since been without his piece of loadstone, which he wears night and day, and enjoys perfect freedom from all the pains inflicted by his old enemy.

Mr. CLARK, Veterinary Surgeon, of Giltspur Street, has for several years paid particular attention to the structure and uses of the several parts of the horse's foot. He has traced its gradual changes from birth through the first five years of the animal's life, when it becomes completely formed; and in the course of this investigation, he has discovered the uses and importance of several parts which were not before known. This has naturally led him to notice the effect of shoeing, and the changes it produces in the structure and functions of the feet. Hence he has been able to deduce several most important conclusions respecting the preservation of the feet, and the general causes of lameness, particularly in the fore feet, as well as the means of avoiding them. The first part of this interesting work is already printed, and we may expect its publication in a few days.

An American paper contains the following extraordinary instance of depletion, practised on Captain James Niblett, a man thirty years of age, of a full and plethoric habit of body when in health, and accustomed to daily exercise on foot, of a bilious aspect. His complaint was an inflammatory affection of the lungs. From the 28th of May to the 28th of July, Captain Niblett lost, by admeasurement, 600 ounces of blood, and by weight 688 ounces 6 drachms; being, it is presumed, the largest quantity ever drawn from the veins of any human being in the same length of time, by medical advice, and for the person to bear it and do so well. He was bled fifty different times, and the blood every time was covered with a thick, strong, white coat, and lost from four to twenty ounces at each time. He was cupped, and had leeches applied daily, for several weeks, exclusive of the bleedings at the arms, and the discharge from the seton.

The Spring Course of Lectures at St. Thomas's and Guy's Hospitals, commence the beginning of February; viz.

At St. Thomas's, Anatomy, and the Operations of Surgery, by Mr. CLINE and Mr. COOPER. Principles and Practice of Surgery by Mr. Cooper.

At Guy's Hospital, Practice of Medicine, by Dr. BABINGTON and

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and Dr. CURRY.—Chemistry, by Dr. BABINGTON, Dr. MARCET, and Mr. ALLEN.—Experimental Philosophy, by Mr. ALLEN.—Theory of Medicine, and Materia Medica, by Dr. CURRY and Dr. CHOLMELEY.—Midwifery, and Diseases of Women and Children, by Dr. HAIGHTON.—Physiology, or Laws of the Animal Œconomy, by Dr. HAIGHTON.—Structure and Diseases of the Teeth, by Mr. FOX.

Dr. HOOPER will commence a Course of Lectures on the Theory and Practice of Physic, the Materia Medica, and Chemistry, on Monday February 5, 1810, at his Lecture Room, in Cork Street, Burlington Garden; at eight o'clock in the morning. A Prospectus with particulars may be had by applying to Dr. H. at his house, No. 21, Saville Row.

A new work by Dr. MACLEAN will be published in a few days, entitled, "An enquiry into the origin, early signs, nature, causes, and cure of hydrothorax, or dropsy of the chest; in which a safe, speedy, and effectual method of evacuating the water, by combinations, and on principles in many respects new, is pointed out; together with an Appendix, containing a considerable number of interesting cases; and many living testimonies of the superior efficacy of the means recommended.

Mr. ASHFORD, Member of the Royal College of Surgeons, and Assistant Surgeon in the Royal Artillery, has in the press an Epitome of Anatomy, comprised in a series of tables. The work will form a thin quarto volume; and as its object is to furnish a copious vocabulary for the Students of Anatomy, perspicuity and simplicity of arrangement have been chiefly aimed at by the author.

Mr. BENJAMIN TRAVERS, Demonstrator of Anatomy at Guy's Hospital, and Surgeon to the Honourable East India Company, has in the press, and nearly ready for publication, an Experimental Inquiry concerning Injuries to the Canal of the Intestines, illustrating the treatment of penetrating wounds and mortified hernia.

In the course of next month will be published, The New London Pharmacopœia, enlarged from the last Edinburgh and Dublin Pharmacopœias, and reduced to one common Nomenclature; with an Appendix of the Genera, and Species of the different Articles of their Materia Medica. Translated and alphabetically arranged, by RICHARD STOCKER, Apothecary to Guy's Hospital.

CORRESPONDENCE.

We are obliged to T. for his ingenious communication, and agree with him that an anonymous answer to a real correspondent may be sometimes admissable. We think, however, on further reflection, T. will see that his remarks might be more gentle. Perhaps he will put them in the form of queries, which will have the double advantage of leading the gentleman he addresses to reconsider his case, and also to feel flattered by being referred to for further information. We are indeed so much pleased with T's paper that we should gladly insert all his remarks in the form of an essay, without any, or with only a side reference to the Correspondent he wishes to set right.

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THE

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AN INQUIRY INTO THE CONTAGIOUS PROPERTY OF HOOPING COUGH. By J. ADAMS, M. D.

UNDER whatever artificial distinctions we attempt to confine Nature, we invariably encounter difficulties. They seem to teach, or rather to remind us, that though order may every where be perceived in the physical constitution of things, yet that it is in vain for us to attempt comprehending the whole design. In our division of the different kingdoms of nature, the different classes of animals, and the different varieties in each class, after all our labours, we arrive at a step which, instead of attempting to surmount, we are obliged to leave as a memorial of our own weakness.

If such is the case in the ordinary appearances of nature, how much greater must our difficulties be in attempting to reduce to order those transient appearances which disease assumes? Even here, however, we discover some general uniformity, which flatters our vanity by inducing us to suppose that we have detected a law; and though we often find ourselves mistaken, yet the detection of that very error brings us nearer to the truth.

I have been led to these reflections by the attempts which have for some time engaged me to ascertain the various kinds and degrees of contagion. For this purpose, the first object was to fix on a certain definition. Such diseases as are generally admitted to be contagious, agree in the following points. 1st. That as far as our knowledge extends, they can only be excited by matter secreted during the disease. 2dly, That every person under the influence of them is contagious either in the part affected, or by the effluvia from some part of his body. 3dly, That he renders those who are susceptible of the same disease, contagious also. 4thly, That the effect is confined to no climate, season, or temperature. 5thly, That if the disease produces a constitutional effect, the person is for

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ever after insensible to that effect. The contagions in which all these laws are found with great regularity, are small-pox, measles, chicken-pox, and scarlatina.

There are others in which the contagious property is more doubtful; the plague and yellow fever, whether contagious or not, are only found to exist under certain temperatures, and at certain seasons, and the constitution remains still susceptible of each. Dysentery seldom spreads but at certain seasons, among men particularly situated, and leaves the subject as susceptible as before. What is vulgarly called typhus fever, though confined to no seasons, yet preserves the same law in leaving the subject for ever susceptible of the disease. All these may likewise be excited without the presence of matter secreted by another under the same disease.

These distinctions are so permanent, that if they are not sufficient to prove plague, yellow fever, dysentery, and typhus are not contagious, they at least show that their contagious properties are different from those of small-pox, measles, and scarlatina; and this difference is so permanent as to be universally admitted. But there is one disease which attacks a person only once during life, which seems confined to no temperature, season, or climate, and which when it occurs spreads generally among those who remain susceptible of it. In all these respects, hooping cough seems to have the property of a true contagion, yet it is often difficult to trace it from any certain source; and the instances in which, at one time, a diseased subject seems to prove contagious, at others perfectly innocuous, are much more numerous than in the small-pox, measles, or scarlatina.

In the latter end of the year 1806, the second edition of "Morbid Poisons" was published, and contained the following remark, or rather inquiry. "The hooping cough is attended with difficulties in the mode in which it subsides and returns, that I pretend not to account for. In many respects it seems to partake of the endemics, aided by a peculiar constitution of the air; and the advantages derived from a change of atmosphere would seem to strengthen this opinion: but I have not satisfied myself of the manner in which this disease arises and seems communicated."

The last number of Dr. Clutterbuck's Review, published at the beginning of 1808, gives an

"*Account*

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"*Account of the spontaneous Appearance of Hooping-Cough.* By Dr. A. C. Willey, of Block Island (N. America).

"The *Tussis Convulsiva*, or Hooping-Cough, occurred here in April 1805, and did not become wholly extinct till some time in Autumn. What rendered it particularly worthy of attention, was its being indigenous. It made its appearance over the greater part of the island at the same time, and was untraceable to any apparent source. The insulated situation of this place is extremely favourable to observations, and the detection of facts of this nature, without the danger of deception; and has afforded, in the present instance, a fair demonstration that the hooping-cough can originate without contagion. Indeed, I am inclined to believe that the rise and progress of this epidemic disease do not depend so much upon contagion as is generally imagined. The universal belief that the system, during the operation of *pertussis*, generates a specific virus capable of communicating the disease, seems to have prevented the mind from looking any farther for a principle adequate to its production. But because the living system possesses the power of elaborating this virus, I know of no reason why we should deny its formation in the departments of inanimate nature. The laws of physiology and inorganic matter agree in the production of soda and lime; why not then in the generation of pertussic poison? That there *is* a principle, independent of contagion, capable of inducing this complaint, I feel fully convinced, not only from its origination on this island, but from the number of cases which I have seen in those who have never been exposed to contagion. This principle undoubtedly exists in the atmosphere, which it pervades to a certain extent; but what it is, and how formed, remains a curious subject for physical research."

In the last Number of the Medical and Physical Journal is a paper from Dr. de Fretis, of Madeira, by which it appears most satisfactorily that the hooping cough was imported into that island by the British troops.

My correspondence furnishes me with instances of hooping cough in the families of two ingenious and experienced physicians. These gentlemen, whose candour is equal to their abilities, without entering deeply into the subject of contagion, furnish in the events which passed immediately under their own notice, very striking instances of the introduction of the disease in one case spreading in all directions as if by contagion, in the other subsiding

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siding with the subject who introduced it, and without the use of any cautionary means.

Early in June, the eldest son of the first of these gentlemen came home from school, much indisposed with severe cough, accompanied with fever. One of his schoolfellows had, a short time before, been removed to his friends, in consequence of his being affected with hooping cough. This led to a suspicion which was justified by the event, for the characteristic symptoms of this harrassing disorder soon manifested themselves with considerable violence. About a week afterwards, a second son, who was at the same school, returned home, affected with the same symptoms, though in a much lighter degree. His illness soon assumed the peculiar marks of the tussis convulsiva. About a week or ten days after these two youths had been at home, the two youngest children began to cough, and gradually passed through the different stages of the same disorder. A maid servant likewise, who was persuaded that she had had the hooping cough in her childhood, was nearly at the same time with the younger children seized with cough, which soon became so violent and strangulating, as to preclude all doubt respecting the nature of her complaint.

As soon as it was ascertained that the children were affected with hooping cough, the usual frequent intercourse that subsisted between this and a neighbouring family, was so regulated, as to prevent, as much as possible, any communication between the sick children and the individuals in this second family, who had not passed through the hooping cough. Unfortunately, however, it was imagined, that one of them had had this disorder, and he was not interdicted from all intercourse; he was seized with the complaint, and in the usual period it visited progressively the several children of that family, who had not previously passed through the disorder.

I think it material to mention farther, that the second son was affected with it, and recovered for more than a week before he came from school; that during this time, but before the cough became uniquivocally *hooping*, he visited, with some others of his school-fellows, Mr. ———'s family, at Layton, and played a good deal with his children. I cannot precisely state in what time, but I believe in about a fortnight after this visit, these children were affected with coughs, which gradually put on the nature and passed through the gradations of hooping cough.

From

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From these events, which though related from memory, cannot but be correct, the writer does not scruple to admit his conviction that pertussis is contagious, though till then he was in doubt. In answer to my inquiries as to the manner in which the individuals might be congregated in the different houses, and also how far the disease might be endemic in the neighbourhoods of each house, he favoured me with the following account.

The school is a solitary house, situated a mile from the town, with which it has little intercourse excepting on Sunday, in the attendance on public worship. A scholar, who appears to have been first seized with the disease in the school, had previously communicated with a family under the disease, on a supposition that he had had it. On his return to school, however, he was affected with cough, which soon assumed the character of hooping cough, and from him, it was believed, that it spread itself in the seminary.

The family at Layton to which it is suspected that one of my Correspondent's sons communicated the complaint, lives in a large airy house, completely and widely detached from any other habitation. Although the occurrence of the disorder in this family was imputed to this intercourse, it must be remarked, that the owner of this house had a son at the same school.

It is not altogether certain, whether pertussis was epidemic at Walthamstow and Layton; it is rather presumed not; there might be several cases of it, but that they were not so numerous, that the disorder could correctly be said to be epidemic.

In Hackney, however, the residence of my correspondent and the other family, it was very prevalent, to such a degree, indeed, that it may be decidedly affirmed to have been epidemic.

My Correspondent has four children, to all of whom this disorder extended its influence, but with different degrees of violence and duration. A maid servant also was visited very severely by it.

Within about forty yards of his house, is another family, whose children and his younger ones are in habits of seeing and associating with each other. As soon as it was ascertained that the hooping cough was in the family, this intercourse was suspended; some watchfulness was employed, to prevent unnecessary communication between the families. The hooping cough never made its appearance in this family. Is not the exemption of these chil-

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dren from the influence of the disease to be referred to the adoption of these precautions.

The other physician gives the following account of the disease in his family.

"In the year 1798 this disease was very prevalent at Richmond, and all my children successively caught it; my eldest boy, then three years old, was the first that sickened; next my second boy, nearly two years old; and afterwards my little girl, at the age of seven months: the symptoms were manifest in the first of these early in the month of October, the last sickened about the middle of November; all of them had the disease severely, particularly the little girl, who was not free from it till July 1799. The early part of that year was inclement, the North East wind blew very severely, and constantly, through the whole spring.

"Towards the close of the month of April 1807, my second daughter, then eight years old, came home to London with the hooping-cough, from the school on Richmond Green, where many of the young ladies were affected with this cough; I instructed her to avoid kissing or drinking out of the same vessel that was used by my youngest son, then four years old; the child, I believe, was attentive to these instructions, and her younger brother continued free from the disease till the month of April 1809, when he brought home the disease from a writing school in the neighbourhood of the Charterhouse, to which he had been sent for an hour in the morning, for about three weeks; both these children had the disease mildly; my second daughter was perfectly recovered before the birth of a younger daughter, in the middle of July 1807. This last little girl was at home with her youngest brother during the whole of his hooping-cough; the same instructions were given him as on the former occasion to his sister, but he forgot himself more than once, and kissed his little sister. He was free from the disease in August, and she has not been affected with hooping-cough. — Is the contagion of hooping-cough less active in mild than in severe weather?"——

It must be admitted that these cases are by no means sufficient to fix the character of a disease; they are, however, inserted on account of the authenticity of the sources from which they are derived. It was my wish and intention to have collected many more facts, especially from practitioners in the country, who have the largest opportunities of tracing in insulated houses, the comparative contagion of hooping cough with small-pox, measles, or scarlatina.

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tation. But on taking leave of the Journal as one of its Editors, I have been anxious to offer these hints for the consideration of Medical Correspondents, whose communications on the subject will, I doubt not, be as well received, and certainly as well attended to, as if directed to the Author of this Inquiry.

J. A.

The following Paper, besides the many useful Medical Remarks it contains, we wish to preserve as a valuable Record, in Addition to what may be found in Sir John Pringle's Works.

REPORT on the prevailing Malady among his Majesty's Forces serving in the Island of Walcheren.

1st.—Nature of the Disease and its Causes.

THE malady prevailing among the British troops in Walcheren, is the endemic fever of marshy countries; the effect of miasmata from a soil the most productive in deleterious exhalations of any, perhaps, in Europe. Its effects, however, are not confined to the British forces, for the natives are annually liable to a similar calamity; and, by the sick returns of the French army for the last seven years, it appears that, at least, one-third of its force has been yearly cut off by the endemic. It has, however, been observed, that, among the highest orders of the inhabitants, and the officers of the British army who have slept in upper apartments, and whose mode of life and comforts are necessarily superior, although they do suffer by the disease, yet the attack altogether is milder and less fatal in its termination; a convincing proof how much good may result from judicious interior economy in an army.

The disease is remittent or intermittent in form, according to circumstances, constantly following a general law of season; appearing among the inhabitants towards the end of summer; becoming more severe in the autumnal months, particularly August and September, declining in October, and nearly ceasing in November.

Among British troops, whose constitutions have not been habituated to the climate, who have been exposed to previous military fatigues, to external wet, to damp, and to crowded accommodation, the disease bears a character of

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greater malignancy, corresponding with the degrees or combinations of all these predisposing causes.

The malady is not contagious in itself, but liable to assume that new form of fever wherever ventilation is defective, the patients crouded, or where other local causes of impurity prevail. This has been strikingly proved in some instances, particularly at Flushing, where we found the accomodations too confined and crouded, where the ditches are foul and obstructed, from the consequences of the late siege, and the streets filthy from imperfect police.

The robust young soldier is more prone to the endemic disease than the old, puny, or consumptive; and such men as have been recruited from dry mountainous districts, are more liable to be affected than those from flat and fenny countries. A proof of the power of habit to which we shall hereafter advert.

The tendency to relapse is very great, and the deaths therefrom have been numerous, and sometimes sudden. Perfect recoveries are rare; convaleseence never secure; and where the recurrence of fever do not destroy life, they quickly lay foundations for permanent visceral obstructions; rendering a large proportion of the sufferers inefficient for future military purposes.

The soldier who has entirely resisted the epidemic of this year, may be expected to enjoy a good state of health until the succeeding autumn; when, though not exempt from an attack, he will be much less liable than one newly arrived.

But such men as have suffered from the prevailing malady will run the risk of being cut off by the inflammatory disease of the ensuing winter and spring, particularly March; in which month, according to the testimony of the inhabitants, such complaints are more frequent and fatal.

By the sick returns obtained from the inspector's office, for the last four weeks, it appears that, though the number of sick have increased, yet the actual mortality has gradually diminished; and, at our last inspection of the hospitals, we remarked, that the epidemic had assumed an aspect somewhat milder than upon our first arrival; leading us to hope that it is on the decline; notwithstanding, for some weeks to come, attacks may be expected among those who have not yet been affected, and its total extinction not accomplished till the winter has regularly set in; which, in this country, usually takes place in the month of November.

2d.—Present

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2d.—Present State of the Sick; and Suggestions for affording immediate Relief to the Hospitals.

The numbers of sick and convalescents in the different hospitals, amount to more than two-thirds of the total force; and, notwithstanding about 1,500 sick have already been sent home by different conveyances from Walcheren alone, the constant occurrence of recent disease, and the numerous relapses, have necessarily kept the hospitals full, even beyond a just proportion; while the tedious recoveries have not permitted the discharges to keep pace with the daily admissions.

To give prompt relief to the existing pressure, to prevent the increased malignancy generated by the effluvia of a crouded hospital, to guard against the production of a contagious fever and dysentery, and to save the lives of many who linger in doubtful convalescence, it is suggested, that six line of battle ships, armed *en flute*, be properly fitted up in England, and be dispatched to receive all the convalescents and cases of fever, that can be removed with safety; each ship may take on board 300, and thus the hospitals on shore be relieved by the abstraction of 1800 persons.

The ships to land the sick at the different ports of Harwich, Deal, Portsmouth, or Plymouth, according to the accommodation those places respectively afford: a proportion of convalescent officers to accompany the sick, in order to keep up military discipline, and to enforce medical regulations. Bedding, medicines, diet, &c. of every description, to be furnished by the men of war, to save the stores so urgently wanted in Walcheren.

The pursers of the ships to keep proper lists of hospital stoppages, to be charged against the agent of the corps to which the sick belong.

The naval surgeons and mates (with the assistance of an army hospital mate, if required), will be adequate to the medical attendance on the passage, and thus the medical staff of the army be reserved for the duties on shore. These ships to return a second or third time, as may be necessary. One of the many advantages attending this scheme is, that each ship might sail singly without incurring the inconveniences and hardships attending the detention for convoy, and of embarking and disembarking great numbers at the same time in fleets of transports.

Independent of this arrangement, for removing sick to England, as an immediate relief to the hospitals, it is also suggested,

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suggested, that there should be always roomy hospital ships in readiness to receive men, who are in the first stage of convalescence, to prevent the relapses so frequent and so fatal on shore; which ships should proceed to England with a fair wind, as occasion may offer, or according as the head of the medical department in Walcheren may recommend, for it is to be kept in constant recollection, that it is slow recoveries and relapses that cause the principal mortality, and swell the numbers in the hospitals, and that it is the prompt removal alone of convalescents to England, that can insure ultimate recovery.

3d.—Prospective Arrangements for preventing future Sickness, and for arresting the Progress of the Malady when it occurs.

The different Battalions now serving in Walcheren, have suffered lamentably by having been suddenly placed under the influence of the endemic miasmata, at the very worst season of the year, with unavoidably defective accommodation, and means ill suited to meet the unexpected calamity, that the majority are unfit for service, and should be removed to England, retaining only such men as have not been attacked by the disease.

The power of habit in reconciling the human constitution to noxious air has already been alluded to; the greater sickness of strangers, the superior healthiness of the natives, and the testimony of the French on this point, sufficiently confirm this principle; and grounding upon it, we presume to recommend to his Majesty's Government, in case the retention of this island should be determined on, to reinforce the garrison very early in the winter, (say November) in order that the constitutions of the men may in some degree be habituated to the climate before the return of the sickly season, which consists of the months of June, July, August, and September.

The troops should not be oppressed with duty, or enjoy less than four nights in bed: On the evenings of the nights on which they mount guard, an extra allowance of spirits to each man would be essentially beneficial; and when relieved next morning, a comfortable warm breakfast of strong coffee should be in readiness.

The Barracks ought to be of the best description, well guarded from cold and damp, with boarded floors; stoves and flues suitably directed to convey an equal temperature to the remotest corners, to be placed in each room. On no account should ground floors be used as sleeping apartments.

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ments. The more lofty the buildings the better; for the tenants of the upper stories not only enjoy the best health, but when taken ill, have the disease in the mildest form; an instance of which came under our observation when we visited Fort Ramakins, and the same is confirmed by the experience of the natives.

The clothing of the soldier should be of warm quality, and in the best repair; he should be equipped with woollen stockings and flannel waistcoats. The frequent changes of which merit particular attention from his officer. The shoes should be strong, of the best water proof leather, to guard against the peculiar damp of the country. The pantaloons should be of a spongy warm texture, blue or grey, in preference to white, that there may be no temptation to adopt the pernicious custom of cleaning them with wetted pipe clay.

The diet, especially in the sickly period, should be nutritive, and the broth well spiced with pepper; during which season, a small portion of unmixed spirit might be usefully allowed early in the morning.

Having ascertained that the crews of the vessels stationed in the very narrow channel (only a few yards from the land) between Beveland and Walcheren, have continued perfectly healthy the whole campaign; thus decidedly proveing that the noxious exhalation is nearly confined to its original source: We recommend, that before the commencement of the autumn of each year, several large ships be moored in convenient stations off the island, as floating barracks, to receive such part of the army as can be spared from the necessary garrison duties; and for the reception of the casual sick of that part of the army so embarked, a suitable number of hospital ships should be similarly anchored, to which also all convalescents on shore may be sent, who are recovering from the first attack of fever; by which early removal, fatal relapses so frequent among those who continue to be exposed to the local exhalations would effectually be prevented.

(Signed) J. BORLAND, M.D.
Inspector of Hospitals.

W. LEMPRIERE, M.D.
Physician to the Forces.

(Signed) G. BLANE, M.D.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AS your respectable Correspondent of this month, whose Essay bears no signature, has replied with equal candour and liberality to my former observations, I felt a strong desire to comply with his request, and that of many others, by drawing out a short account of the intended Bill for improving the education and practice of future candidates. With this view, I solicited, and readily obtained the approbation of those who have taken an active part in the measures already instituted. I shall therefore proceed, with your leave, to lay the following statement before your numerous readers. I am enabled to execute my design from having been put into possession of a copy, which having been submitted to, and returned from one of the medical corporations, is now lying before me. The Bill provides,

1st. That all members of the curative art shall be registered in the capacity or capacities in which they practice. They are also to put their names and titles on the outer doors of their dwelling houses; by which means, strangers will be able, on emergencies, to find out proper medical help. Persons guilty of false enteries will be liable to heavy penalties.

2dly. "And be it further enacted, that from and after the day , no person *who shall not before that time* have practised or acted as a physician, shall be entitled to be registered or to take out any such certificate as aforesaid, to practice or act as a physician, or shall be entitled or allowed to practice, or act as a physician, for gain or reward, or be entitled or permitted to claim or receive any recompense or remuneration for such his practice, until he shall have taken the degree of a Doctor or Batchelor of Physic, in some British, or Irish, or Foreign University; and shall have obtained a Diploma or Certificate from the proper officer, of having taken such degree, and also shall have been examined by, and shall have obtained a Diploma or authority to practice as a Physician, from some one of the Colleges of Physicians of England, Scotland, or Ireland, respectively, or from the Faculty of Physicians and Surgeons of Glasgow.

"And no person, *who shall not before that time*, have practiced as a Surgeon, shall be entitled to be registered,

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or to take out any Certificate to practice as a Surgeon, or shall be entitled or allowed to act as a Surgeon, for gain or reward, or to receive any recompense or remuneration for such practice, until he shall have been examined by, and shall have obtained a Diploma or authority to practice as a Surgeon, from some one of the Colleges of Surgeons in England, Scotland, or Ireland, respectively, or from the Faculty of Physicians and Surgeons of Glasgow. "And no person, *who shall not before that time*, have practiced as an Apothecary, or sold Medicines or Drugs, or chemical preparations as an Apothecary, Chemist, or Druggist, shall be entitled to be registered to practice, or act, or shall be entitled or allowed to practice or act as an Apothecary, for gain or reward, or to sell Medicines or Drugs, or chemical preparations as an Apothecary, or as a Chemist and Druggist, until he shall have served an apprenticeship by regular Indentures to some person or persons, actually practising, or acting, or selling, as aforesaid, in the capacity or capacities, in which the person so proposing to practice, or act, or sell, as aforesaid, shall register himself, and take out his Certificate, as aforesaid, nor until he shall have been examined by and shall have obtained a Certificate for the capacity or capacities in which he is to act, or sell, as aforesaid, from the Company of Apothecaries in England, or Ireland, or Scotland, from a Medical Board, to be established by the Commissioners appointed to carry this act into execution.

"And no person, *not having before that time* practised as a Man-midwife, shall be entitled to be registered, to practice and act, or shall be entitled or allowed to act as a Man-midwife, for gain or reward, or to receive any remuneration or recompence for acting as a Man-midwife, unless he shall be a Physician, Surgeon, or Apothecary, and shall have served or acted for twelve calendar months, under some person or persons, practising as a Man-midwife or Men-midwives, and shall have attended, or actually assisted such person or persons, in his or their practice, as a Man-midwife or Men-midwives, and shall have been examined by, and shall have obtained a Certificate from the Board of Midwifery Practitioners, to be appointed by the said Commissioners.

"And be it further enacted, that nothing in this Act shall extend to prevent any person from administering any medicine, or from practising as a bone-setter, or from acting in any other manner in Medicine or Surgery in which *he shall have acted before the passing of this Act*, from

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from continuing so to practice, without being subject to any penalties for not being registered, and having a Certificate under this Act as a Physician, Surgeon, Man-midwife, or Apothecary, provided that such person shall have obtained, and have a Certificate and Licence continuing in full force, and not withdrawn, from any three or more Magistrates, assembled at any Quarter or General Adjourned or Petty Sessions of the Peace for the County in which he shall practice, and shall record such Licence annually, in like manner as registers are required to be made under this Act; and it shall be lawful for the Justices of the Peace, assembled at any General or Quarter Sessions of the Peace for the County or Place in which such Licence shall have been granted, as aforesaid, or the major part of them, to withdraw any such Licence, whenever they shall think proper; and the Clerk of the Peace shall therefore give notice to the Registrar, by whom such Licence shall have been registered, as aforesaid, of such Licence being so withdrawn, as aforesaid."

The preceding clauses contain the essence of the Bill, tho' of course many others are added to make them effectual, and are therefore inserted at full length for the information of the Faculty. I trust they have been drawn out with a proper regard to the present Faculty, and with a view to the gradual introduction of a mild and radical amendment. I entertain little doubt that several things mentioned will become objects of keen discussion, as they have a tendency to affect the interests, and prejudices of different persons. Had we now to originate a Medical Establishment for the Empire, I am free to admit, that greater changes and improvements might be recommended; but under existing circumstances and difficulties, perhaps nothing better can be attempted with the prospect of success. It is expressly provided for in the act, that all are to be continued in the capacities which they have been admitted to fill, without being subject to retrospective inquiries. For example, persons having occupied and been admitted *by their brethren* to discharge the duties of regular Physicians, though not graduates in medicine, will by this act become legitimate Physicians, and entitled to act accordingly; I must further observe, that according to the opinion of Chief Justice Mansfield, a Doctor's diploma does not in itself entitle the possessor to practise in the country parts of England. He must be an extra-licentiate of the Royal College of Physicians, or medical graduate of an English University. It is true, the College have no means

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means of punishing the disobedient, because the statute is unsupported by penalties. This, I conceive, notwithstanding the vaunting of the College, is the reason for suffering the law to remain a dead letter. Doctors in physic, residing in London, are in a different condition; they can be convicted in five pounds the month for practising without the College licence. Still it must be admitted, that the provincial physicians are in a very awkward and humiliating situation. They are only Doctors by courtesy. They cannot, therefore, claim rank, or defend themselves in courts of law. In the cause lately tried at Stafford, before Judge Mansfield, a Physician who graduated in Scotland being grossly abused in his professional capacity, sued for redress, but could obtain none, because he had not complied with the act of Henry VIII. By the provisions of the Bill, Physicians now in being will become Legitimate Practitioners; they will in consequence be entitled to the rank of Doctors, and to protection in all cases. In the same manner, persons from having acted as Surgeons, though they have no diploma, will be made legal, and entitled to the reward of a Surgeon. This is of infinite importance to the present race of surgical practitioners, who, as I formerly observed, can now obtain no legal recompence for professional insults, or any thing performed in surgery, unless they can produce a surgeon's diploma. Such is the irregular and degraded state of medical and surgical practice in England and Wales, where it is ascertained that general learning, personal experience, and the highest medical acquisitions will not avail themselves. It is, however, only reasonable, that the present establishment, from having entered upon their professional duties like their predecessors, without intending any thing improper, should be protected through life; but that no others be suffered to practise until they shall have complied with the Acts of Parliament, and intention of the Crown, in founding the medical Corporations.

Before concluding this long epistle, it will be necessary to remove the objections, and tranquilize the minds of some persons, who have hastily supposed that the proposed regulations will be injurious to the public and subordinate departments, by limiting Physicians, Surgeons, and Apothecaries to their respective lines. It is, indeed, declared in the Bill, that no person shall practise *as* a Physician, Surgeon, or Apothecary, unless he possesses an appropriate authority; but it is no where provided, nor was it, I believe, ever intended, that the same medical men should

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should be prevented from practising, at pleasure, in all the departments of physic, surgery, or pharmacy; e. g. to practise *as* a Physician, the person must have his name and title inserted in a register, placed on the outer door. He will likewise, as formerly, subjoin his initials to prescriptions. Surgeons and Apothecaries must be registered in the same way. By these means, the several orders of the profession will be fully designated, but not prevented from exercising the different branches of the art. They will only be required to follow them under their respective titles. This is not the obtrusive statement of an uninformed person, it rests *upon high legal authority*, and is therefore deserving of every attention.

I am, &c.

A Friend to a mild and gradual Reform.

February 10, 1810.

Description of the Plate to Mr. Earle's *Case of Suppuration of the Brain, discovered by Dissection, but not suspected during Life.* (*P.* 89.)

A. Slough of the dura mater.

B. Abscess in the substance of the brain, with its upper surface turned back, and covered with white sloughs.

C. A probe passed out at the lower opening of the abscess, between the convolutions of the brain.

D. Cut edge of the falciform process of the dura mater.

E. Opening by which the abscess communicated with the lateral ventricle.

F. F. Whole extent of the ventricle laid open by a horizontal section.

G. Plexus choroides in a sloughy state.

H. Ulcerated surface of the thalamus nervi optici.

Observations

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Observations and Cases illustrative of the Effects produced by the Solar Heat upon the Human Body.

By Mr. John Howship, Surgeon.

THE numerous diseases to which the human frame is subjected, exposed as it is to the influence of the changing seasons in the various climates of the habitable globe, seem generally to depend either upon one or both of two causes; the first of which relates to the usual condition of the atmosphere as connected with high or low, moist or dry, confined or airy situations; the second arises from the direct influence of the heat of the sun, regulating the temperature of the air, and in a great measure, the excitement of the body. To the first of these may justly be referred the predisposition to, and even the production of many formidable diseases; but it is the second only, that will be the subject of consideration at present.

With regard to the effects of solar heat upon the human body, it may be observed, that those who in a temperate latitude, have usually enjoyed full health and strength, will upon removal to a warmer climate be very liable to suffer from any particular description of inflammatory attack to which there may have been constitutional predisposition; while, on the other hand, such as do not possess what is termed a good constitution, who never have been subject to inflammatory complaints, but have been considered to possess a weakly habit of body, do also generally experience very unpleasant consequences from a high temperature; many persons of the latter description complain, that their feelings are constantly those of irksome langour and depression; and from any continued exertion, or any accidental exposure to the sun, they will sometimes fall down suddenly, quite exhausted, and reduced to a state of temporary fainting and insensibility.

In the climate of the Mediterranean for instance, where Fahrenheit's thermometer, in the summer season, usually ranges between 70 and 86° in the shade, although not within the tropics, nothing is more common than such accidental complaints as arise simply from the heat of the sun operating variously upon various habits and in various constitutions; producing in some a violent paroxysm of highly inflammatory fever, or an attack of local inflammation; in others again, whose habit of body is weak and deficient, a sort of faintness, or a fit of sudden insensibility with langour, very generally preceded by some of the symptoms indicating an excessive debility; and it matters

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not whether the weakly condition of the habit is an original defect in constitution, or the accidental consequence of former disease of viscera.

Upon tedious garrison parades, in the Island of Minorca, it has very often happened that a young soldier, a recruit lately joined from England, has been overcome by the heat of the sun, and has fallen down in the ranks: afterwards complaining of a most violent heat and sharp pains shooting through his head, which state has been quickly followed by the heat of skin, dry tongue, wild delirium, &c. that attend inflammation of the brain, although he was in all respects well when he first came upon the parade.

In precisely the same manner it has very frequently happened, that the most healthy men have been overpowered by the force of the meridian heat of the sun. It has been necessary to carry them off from the parade; and upon inquiry, it has been found, that they have either had a sudden attack of the most insupportable pain, prickling and darting through every part of the chest, with very great oppression, so as almost to prevent their breathing at all, or they have complained of a severe and fixed pain in the side, somewhere under the margins of the ribs, or near the ensiform cartilage, catching their breath in inspiration, and connected with an acute pain at the shoulder.

The force with which the sun is capable of acting upon the human body, is truly astonishing; it is such, as will very readily explain its occasionally exciting inflammatory action, either local or general, in the system, even allowing, that in some instances, predisposition is not taken into the account.

The effect of heat upon weakly persons is that of a stimulus, which, without exciting any excessive action in particular organs, may operate merely as a power capable of producing a sudden exhaustion of irritability in the body. It seems to be evidently upon this principle, that a soldier has, in many instances, suddenly fallen down in the ranks, after having complained of a swimming in his head, followed by a general state of excessive and inexpressible failure of strength over every part of his body; or upon being carried from the parade, he has been found pale, languid, and nearly senseless; every voluntary muscle, both of body and limbs, being involved in a state of universal tremor, or faint vibration, which has gradually subsided, in proportion to the readiness with which the system has recovered its due tone, and the man has thus been restored.

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But when the previous state of constitutional weakness has been very excessive, and the force of the solar rays also exceedingly great, the application of this powerful stimulus has very repeatedly been productive of a total and absolute exhaustion of the irritable or vital principle. The poor man has been struck down, almost as if by lightening; upon being carried into the shade, every possible exertion has been used to restore him to life, but in vain, and the man has died. It is however proper to observe, that such serious events as these are not of frequent occurrence, and are incident almost exclusively to such persons as have been long known to lead a life of intemperance, in whom consequently a state of great indirect debility must habitually have prevailed.

One of the most frequent immediate effects of the solar heat acting in force upon the living body, is the production of an inflammation; the stimuli acting either upon the external surface of the body, or else through the surface upon some of the contained viscera, any of which are liable to be thrown into a state of high excitement from the power of this most active agent.

Thus, in some cases, the heat of the sun has produced a temporary redness upon some portion of the surface of the body, raising the cuticle in vesications; while in other instances, troublesome inflammatory actions have been the consequence. In the year 1804, one of the soldiers of the 13th regiment of foot, then in garrison at Gibraltar, while engaged in washing his shirt upon the rocks at the sea-side, was not at the time aware of the day being particularly hot, but his back and shoulders having been exposed to the action of the sun, before the evening a very violent and alarming degree of inflammation took place upon the integuments, attended with severe shooting pains, darting through the spine forward to the sternum, producing great distress in breathing. In this case, by the adoption of prompt measures, the inflammation was prevented from doing any serious mischief in the breast, but in spite of every exertion, a slough formed upon the back, of considerable extent, and there was for some time a doubt whether the man would recover.

Independant however of those immediate effects enumerated above, the heated atmosphere of a warm climate may be considered to operate, though silently and slowly, yet rarely towards the production of any great changes in the state of constitution, in every individual who has formerly been resident in a more temperate climate.

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The peculiar diathesis to the establishment of which a residence in a warm climate seems favourable, is a certain modification of irritability, manifested in the evident tendency to some particular forms of nervous disease, but not to others. That such a diathesis may exist, dependant upon temperature alone, is rendered extremely probable by the fact of its being present in the warm, but not in the more temperate seasons, in the same climate. Thus, in the Mediterranean, in the month of October 1805, after the late Lord Nelson's glorious victory at sea, near 400 wounded sailors and marines were landed at Gibraltar, out of which number, as many as eighteen died of lock jaw and tetanus; while it was clearly ascertained, that in the month of December 1803, after the Toulon expedition, more than 400 wounded men were sent on shore for treatment in the naval hospital of that garrison, and from this larger number of surgical cases, there was only one solitary example of tetanus.

A Case of Coup de Soleil.

M. Kinnear, private in the 17th regiment of light dragoons, a strong and healthy man, twenty-two years of age, was on board one of the transports carrying his regiment out to South America, in the year 1806. From a deficiency in the supply of water, and the want of refreshments for the troops, it was judged expedient that the fleet should put in at St. Jago, off Cape de Verd. That island is situated in north latitude, and the fleet came to an anchor in the month of December; consequently, they arrived in the coolest season of that climate.

The heat of the sun was nevertheless very great, the thermometer generally being in the day-time as high as 80°; and, in the shade, and throughout the night, never below 78°.

On December the 14th, this man had been lying upon the deck after dinner, in conversation with several others, about two in the afternoon; about this time he felt himself drowsy, and soon after fell asleep. He lay exposed to the heat of the sun for about an hour, and then awoke, with excruciating pains in all his bones, together with a most violent shivering fit, so that he could scarcely stand up; added to these complaints, he had an intolerable degree of pain in his head, which almost took away his senses. He said that his head was "bursting" with horrible pain, darting and throbbing through his brain. The eyes were heavy

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heavy, and the conjunctive membrane of a dirty red colour; the countenance in general full, and much flushed.

About his chest he suffered great distress; the most violent stitches of pain shooting through "every part" of the breast. The pains that were in his arms and legs, also, were very acute and excessively severe.

In this state he made a shift to creep down between decks, and got into his birth; here the violence of the trembling gradually subsided, and a little time after he got some repose. He slept till about six o'clock in the evening, when he was accidentally disturbed, and found himself still very hot. But it is remarkable, that this heat was unattended with thirst, or the least sensation of heat in the mouth. He was, at six o'clock in the evening, reported sick by the serjeant of his troop, and had still most of the above symptoms upon him; dreadful pain in the head and great heat of skin, and universal pain everywhere.

The heat of skin however was now, in some degree subsiding into a state of perspirable moisture. An emetic of ipecacuanha, so directed as that it should operate very mildly, was ordered for him; this answered very well, and before midnight his stomach was cleared, and the bowels, as well as the surface, sufficiently relaxed. The pain in his head continued through the night so distractingly severe, that he was at times nearly delirious; and when his bowels were disturbed by the operation of the medicine he had taken, it was only by the assistance of two men that he could be removed, as he appeared neither to have power nor reason to enable him to direct his steps.

Early the following morning he was seen, and was found to be greatly relieved; the stitches through the breast being much less frequent, and much diminished in severity. The pain in his head, also, was very much alleviated. The pulse had been in the first instance much quickened, although not particularly hard; but it was, by this time, perfectly restored to its former state of tranquillity, beating only ninety in the minute.

The pain in the head from this time continued to diminish, but he was in point of strength more reduced than can be believed; and was for several days afterwards confined to his birth from mere weakness, being unable to support himself upon his feet. This man recovered.

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A Case of Coup de Soleil.

J. Gready, a strong healthy lad, nineteen years of age, a private in the 17th light dragoons, upon the 22d of December, 1806, was on shore at Porta Praya, St. Jago, with the fatigue party upon the sands, for the purpose of assisting in watering the fleet. He was employed in rolling the empty casks on shore from the boats, and in rolling them back again through the shoal water to the boats again, after they were filled. At this duty he was nearly naked, having on only a pair of loose canvas trowsers; and he was of necessity constantly in the salt water. With the party he returned on board at the usual hour in the evening, and was almost immediately afterwards seized with a violent trembling in his limbs and body; attended with so severe a pain in the head, that he was every now and then delirious. According to his own mode of expression, his head throbbed as if it was in the act of splitting. Consistent with this persuasion, he requested that his head might be bound round as tight as possible with a handkerchief. He also suffered extremely from pains darting violently through every part of his breast, and about the sternum especially. With these complaints his pulse was quickened, but was perfectly soft and small; the tongue was rather disposed to whiteness, and he complained of being very thirsty. An emetic of the ipecacuan powder was ordered for him; which operated so powerfully in his favour, that by the following morning he was almost completely relieved from the pains, with which he had been afflicted in his head and in his chest.

Upon the second day afterwards, the only remains of his complaints were about the breast. He had still a stitch of sharp pain now and then, and a troublesome cough, which was not perfectly removed for several weeks after the accident; but eventually he recovered.

A Case, in which fatal Disease arose from a Coup de Soleil.

A soldier in the garrison of Gibraltar, while on a working party, weary and fatigued, laid down upon his face, and soon fell asleep, at a time when the day was clear, and the sun hot. He soon, however, awoke in great pain, and was confined to his bed in the hospital for six weeks after, with no other complaint than a constant and distracting pain in and about his forehead. At the comple-

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tion of this period, he said that he found himself getting better; in short, being a good soldier, he volunteered going to his duty, in preference to being considered any longer an invalid. Nothing more was heard of him by the surgeon for six months; when the pain in his head became again so urgent, that he was at last obliged to give way to it, and report himself. He was a second time admitted into the hospital, and the pain became for a considerable length of time remittent; returning with aggravated severity every morning, and sometimes missing a morning, or changing its hour of increased violence. Still, however, the constitutional health continued unimpaired; the appetite had been constantly good, and the pulse undisturbed; the skin always cool and perspirable, and the tongue moist.

About two months after his second admission into the hospital, he felt himself growing worse in the night; he became slightly delirious, and soon after this expired.

Upon examination of the head after death, it appeared that an universal increase of vascularity had taken place within the cranium. In no part of the cerebrum, however, could any decided disease be discovered. Upon raising the tentorium, however, the surface of the cerebellum was found to be in a state of disease; an ulcerated superficial cavity being found, that was about the size of a shilling, containing a thin ichorous matter. The pia mater and vascular tissue were destroyed and lost on this part, and the corresponding surface of the dura mater discoloured.

Mill-street, Hanover-square,
January 16, 1810.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Lament exceedingly, that your Journal for last June did not earlier attract my notice. If I had been so fortunate, I certainly should have deemed it a duty to have answered with more promptitude Mr. Spencer's statement of the pernicious effects of ipecacuanha upon his apprentice, with the hope that the recital of my own case would

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furnish that gentleman with useful information, and gratify the object of his humane inquiry.

I have preferred this public to any private communication, as best calculated to fulfil a good intention; at the same time, I indulge my inclination to promote the utility of your valuable publication; which so largely contributes to the diffusion of medical knowledge, by recording important or singular facts, illustrative of the history and practice of medicine.

In the year 1787 or 8, when I had been about two years an apprentice, in pounding the root to make the ipecacuanha wine, I was suddenly affected with violent and reiterated sneezings, with a very profuse defluxion from the eyes and nose: these symptoms continued without intermission, for many hours, accompanied by great heat and anguish throughout the cavity of the thorax, and the most oppressive dyspnœa. Exhausted by the violence of this attack, I was conveyed to bed; where supported, for I was unable to lie down, I remained more or less afflicted till the next morning. I arose extremely weakened, and with all the usual appearances of a severe catarrh.

Anterior to this event, I had never been affected by ipecacuanha, or if I had been so, it must have been very slightly; and was perhaps imputed to the sudden effects of an ordinary cold. From this date I have been perpetually tormented by violent catarrhs. Subsequently, the slightest motion of the simple or compound powder of ipecacuanha superinduces precisely similar, but more gentle effects. When weighing or mixing these powders, afterwards, I carefully guarded my mouth and nose by a cloth; but an incautious removal of it, for inspiration, till perhaps half an hour had elapsed, after the medicine was finished, occasioned the same inconveniences. At length I was compelled, except from the most urgent necessity, to quit the shop, while ipecacuanha was in hand; indeed, I have frequently entered my own, or the shop of a stranger, long after it had been used; and by the instant recurrence of these very distressing sensations, have been able too accurately to ascertain the recent exposure of this drug. I have resorted to various expedients for relief, but found none so efficacious as copious draughts of warm water, which appeared to promote expectoration, and with the increase of this, all the symptoms became gradually less irksome.

Although fully aware of the deleterious qualities of ipecacuanha by inspiration, I had no suspicion it would produce when taken internally, any extraordinary effects.

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Some months, perhaps a year, after the first attack, I took a dose of the compound powder of ipecacuanha at bed-time, as a sudorific, in the form of a bolus; I speedily felt the pains in the chest, with dyspnœa, but not so acutely as when introduced by the breath; there was neither sneezing, nor defluxion. Deterred by this uncommon circumstance, I never designedly had recourse to ipecacuanha for more than twenty years. Two accidents lately, within a few weeks of each other, afforded me the opportunity of determining its present effects, when inwardly administered.

A friend, hearing me cough in the street, presented me with a few lozenges; I took two at once; they were scarcely dissolved, ere I felt a pungent roughness in every part of the mouth, exciting a great secretion of saliva; this, it is worthy of noting, was the reverse in the preceding attacks, when the excretory ducts uniformly denied their offices, and occasioned a disagreeable dryness of the mucous membrane. As this acrid sensation extended to the lips, they became prodigiously swollen and inflamed; on the fauces I experienced the like effects, with a most teazing, itching irritation; it descended the trachea, producing pain and dyspnœa; it likewise proceeded down the œsophagus, creating a slight heat in the stomach, and passed with moderate gripings throughout the intestinal canal. The swelling and soreness of the lips continued the longest of these symptoms, but none were sufficiently severe to induce alarm. Soon after, a powder was brought to my house, with an order to prepare more of the same kind. I conveyed a few particles to my tongue, to discover its composition; I quickly experienced those feelings in the mouth and lips, which arose from the lozenges before, but in a milder degree, and they extended no further. Upon referring to the prescription, I found that there was one grain of ipecacuanha, with ten of calcined magnesia. This incident gave birth to an idea, that the former strange affection had originated from the same cause as the latter, and upon due inquiry, my suspicion was confirmed; they were ipecacuanha lozenges which I had swallowed.

This aptitude to take cold, and susceptibility to the action of ipecacuanha varied but little, till I was about thirty years old; since, though still distressed by the application of this drug, yet the violence of its operation is considerably diminished. Catarrhs occur at longer intervals, but with more severity, and with increased difficulty of

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of breathing, and with more serious derangement of my general health.

In constitutions possessing this peculiar disposition, phthisis pulmonalis will, in all likelihood, supervene, and assuredly still more so, where a spitting of blood may have been excited; happily, this has never happened to me. From a strict adherence to a regular and temporate mode of living, I apprehend no such consequence; but I fear, that at no very distant period, I shall have to contend with a permanent asthma. One of my parents was always extremely liable to catarrh, and at 40 had a severe attack of asthma, from which she has remained entirely free many years; some of my children partake of the same disposition, but neither generation are similarly affected by ipecacuanha.

By the consequences which resulted from the lozenges, it is very probable, that if I had taken as large a dose as is usually exhibited for an emetic, the same train of symptoms would have succeeded, as was witnessed upon Mr. S's apprentice.

Upon a subject so personal and interesting, I have made extensive inquiries, but never heard of more than one other case besides Mr. Spencer's; and that I suspect, is the same as mentioned by Mr. Royston in his Remarks on a Medical Topography. I do not observe that Mr. S's communication and request for information, has received any notice from your numerous readers; hence, it is fair to infer, that this peculiarity of constitution is extremely rare, or surely in so wide a range as your excellent Journal embraces, some practitioner would have transmitted the required intelligence.

The virtues of ipecacuanha are now so justly and universally appreciated, it forms a component part of such various pharmaceutical preparations, prescribed for numerous diseases, that it appears next to impossible, but what the above related singular symptoms must occasionally have occurred in practice. These anomalies would naturally induce considerable surprise and alarm, both in the patient and the medical attendant, who, unsuspicious of the real, would ascribe them to an erroneous cause, which might lead to a very fatal result.

I presume it is highly probable, that these remarkable effects on the system from ipecacuhana, in the first instance, occurred by the excess of a particular stimulus, adventitiously applied to the mucous membrane, which ever after retained a peculiar susceptibility to the specific irritation

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irritation of this drug; else, why should I have remained nearly two years exposed, yet be insensible to its influence?

Ipecacuanha is capable of being reduced into one of the finest and most impalpable powders; which by motion, is readily diffused, and becomes buoyant in the circumambient atmosphere: these minute particles are soon inhaled with the common air, and produce this simultaneous and irritating action, by contact with the sensitive mucous membrane, extended over the organs of respiration. The grosser particles of snuff, or of other stimulating powders, excite no more irritation on me than on others.

I conceive it will be difficult, if not impracticable, to offer a satisfactory solution to Mr. S's question, "how is this morbid sensibility to be removed?"

For the last eighteen years, I have been little exposed to the effluvia of ipecacuanha; but I know from experience, that as I grow older, its impression, though not lost, is evidently lessened, and, perhaps, will entirely cease with the progress of age.

Gonorrhœa and catarrh are inflammatory affections of the mucous membrane, by the application of certain stimuli. It is undeniable, that from the frequency of the attacks, or from the advance of years, that the aptitude to imbibe, and the violence of both these diseases, materially decline; and at length the habit generally becomes totally insusceptible to the action of either.

Finally, upon these grounds, I conclude, that during the inflammatory diathesis, natural to adolescence, and the earlier stages of life, this peculiar tendency to the morbid effects of ipecacuanha will continue, and that Mr. S's apprentice and myself, can look forward to old age alone for protection; though, if we exist to that period, we shall inevitably be living monuments of this unfortunate and curious idiosyncracy.

I am, &c.

B.

February 1, 1810.

*** One of the Editors recollects a somewhat similar effect produced on his father, when exposed to the effluvia of ipecacuanha, whilst it was under bruising. Nothing of the kind, however, happened from the internal use of the same remedy, for Dover's powder was frequently taken with only its common sudorific effect.

Letter

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LETTER to the Société de Medicine at Paris, on the Plica Polonica. By M. de La FONTAINE, Surgeon en Chef to the Polish Army, and Physician to the King of Poland.

(From the Journal de Medicine.)

I Have read in several Journals an extract from a Memoir of M. Roussille Chamsern on Plica. This memoir contains errors which it is easy to refute, by experiments founded on incontestible facts. The author seems to have seen nothing but false plica, and all his assertions are erroneous. I am prepared to answer them in a more detailed manner; in the mean time I beg leave to submit some reflections to your judgment.

I resided in Poland for 30 years. It was at Cracow that I commenced my medical career, and practiced there five years, when the late King of Poland called me into his service. While in this situation, I conceived the idea of studying the plicous disease, endemic in Poland. With this view I took several natives who were affected with plica into my own house. Having them thus under my eyes, and having an opportunity of conversing with them frequently during the day, I thought I could better trace the progress of the disease, and make some fundamental observations. I added theory to practice; I procured various works on the plica; read all the authors who had written on the subject, and who exceeded seven hundred in number; among these are some of the most distinguished characters of the last three centuries.

At Warsaw I continued my laborious inquiries; a very extensive practice in the most populous city in Poland, the hospital of the Court, and various other hospitals, afforded me ample opportunities of daily observing cases of plica, and watching its various shades, distinguishing the true from the false plica, and, above all, of minutely examining the affections, which, like masked diseases, are the precursors of plica.

After a study of fifteen years, and the treatment of several thousands of persons affected with plica, I ventured to print my work. Since that period I have never missed any opportunity of acquiring additional knowledge of this singular disease. The circumstance of the hair, in plicous cases, becoming grey, as if from the effects of age, particularly attracted my attention, not having witnessed such a case before, as well as the different heads of chronic

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nic diseases, which happen before or after plica, and upon which I had only noticed the most prominent features.

The difficult art of ascertaining diseases, and curing them methodically, requires long continued studies, and a series of well regulated observations, particularly when so complicated an endemic as the plica polonica is under examination. To attain this object, a long residence in the country is requisite, besides consulting and profiting by the experience of those who have preceded us; setting out on a sound theory, we ought always to have observed a prodigious number of similar cases before the crisis; for without being acquainted with the country, the inhabitants, their ways of living, manners, customs, external and internal causes which injure the body, food, air, climate, &c. without frequent intercourse with enlightened men acquainted with the subject; in short, without studying by himself this singular disease, an author cannot give any real useful precept for the treatment that ought to be applied. From what M. Roussille Chamseru asserts in his works, I maintain that he has not seen a single patient labouring under a true plica: for we cannot regard as such, the man and the dog of Posen, since, if they ever had the true plica, they were by that time free from that disease. He has not seen any thing therefore but the termination of the plica, i. e. the crisis: at this period the plica is finished; the disease has ceased, and the patient is convalescent.

The means proposed by M. Chamseru for destroying plica, are prompt and easy; and his prejudices induced him to regard them as demonstrated. He asserts, that we may cut off the plica without any danger; it is fortunate for those who are attacked with this disease, that an advice so prejudicial, thrown out at random, has met with little approbation in Poland.

If M. Chamseru had ever an opportunity of seeing patients in whom the plica was not yet declared, or in whom the plica was quite recent, and still firmly attached to the head; if he had seen this plica on the banks of the Vistula, the Narva, the Niemen, the Bug, and the Wolga, instead of observing it at Posen, which is nearer Germany; if he had seen a true plica cut, when recently formed; if he had been present at the frightful, or even mortal scenes which succeed this operation, he certainly would not have hazarded such an opinion.

The author of the memoir on plica regards want of cleanliness, the use of furred bonnets, grease, and the neglect

to

to comb the hair, as the sole causes of this disease. He says also, that men are more frequently attacked than women. For my part, I, who have seen and cured this disease for thirty years, maintain the contrary, and my assertion is founded on several thousand different experiments.

Women in general have more hair than men, and consequently the plicous matter in them is more easily propagated; besides, the men in Poland have their heads shaven, and are therefore less subject to be infected with plica than the women.

As to want of cleanliness, considered as a cause of plica, we shall venture to say, that the lower classes in all countries are negligent of their persons, and yet we do not find any instances of plica in other nations, as we do among the Poles.

There are hairy parts of the human body which it is not usual to comb, and yet this neglect is attended with no inconvenience. In Poland, on the contrary, the plica is frequently found in those parts, nay even children are born with plica, a circumstance which, of course, cannot proceed from want of cleanliness. It would seem also that the author has not seen the nails of the hands and toes affected with plica, since he does not speak of this circumstance in his Memoir.

Daily experience demonstrates, that no age and no condition is exempt from this disease, and even the utmost attention to cleanliness does not always preserve from infection; this proves that the plica is really a disease peculiar to Poland. All authors, however, who have hitherto written on the subject, have carefully distinguished between true and false plica. These two diseases, in fact, have very different characters, which have entirely escaped M. Chamseru. The false plica arising only from the hair being twisted, and plaited by grease and filth. The use of the comb will necessarily excite pain, and yet it is possible to use it. This kind of plica is always far removed from the head, an advantage which it possesses over the true plica, which on the contrary always renders the hair firmly adherent to the head, forming as it were one mass; the slightest touch gives the patient the most acute pain, and even frequently produces convulsions; it would therefore be very dangerous to cut a plica of this description.

None of the authors who have written on this disease, have doubted its existence, but they are not agreed with respect to its origin, the manner of treating it, and particularly as to the danger of cutting it off. Several maintain

that

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that this operation may be performed, while others are of a contrary opinion; both ways of thinking are correct, although at first sight, they seem formally to contradict each other.

Those authors who have forbid us to touch the plica, far less to cut it, have made their observations on true plica, recently formed and strongly attached to the head: hence proceeds their erroneous opinion, that plica must in no case be cut. Others, on the contrary, have made experiments on false, or upon true plica, which have become detached from the head, and have affirmed, that it may be cut without danger; upon these two different observations have the opinion of authors been founded. I flatter myself that I have been the first to clear up the doubts, and to resolve the various questions which have arisen on this subject; because my multiplied observations have taught me that we cannot cut a true plica without great danger, when in its first stage, and adhering to the head. All the symptoms must have entirely ceased, the plica must be removed from the head at least two or three inches, and we must have seen new and sound hairs springing up which push it downwards. Lastly, the patient must have gone through a complete crisis before we can cut the true plica, whereas the false, as it proceeds from want of cleanliness only, may be cut at any time without danger.

The first partition of Poland furnished some remarkable instances of what I now advance. Among the Polish recruits raised by the new possessors, there were many young persons affected with plica. Russia, where this disease is endemic as well as in Poland, and particularly in the provinces adjoining the latter country, did not enrol any, but Austria and Prussia did. The German surgeons of that period had false notions respecting plica; the heads of the new soldiers were shaved, which caused convulsions and death in some; while others, who had undergone a similar operation, got well. New opinions continued to be started among medical men, until the publication of my work, in which the different cases, founded on authentic observations, were analysed. I pointed out the circumstances in which it was possible to cut plica with advantage. One of the best surgeons in Germany, M. Theden, sent me the following letter on the subject, (1792.) "I have read your work on plica with great pleasure: the contents will be highly useful to the Prussian army. Hitherto our Polish recruits have furnished us with sad examples of the ignorance in which we were on the subject of this disease.

Last

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Last year, three young men died suddenly from epilepsy, when we cut off the plica from them; this will not happen in future, for we shall strictly adhere to your directions. I have made an application to the Prussian Government, with a view to procure a copy of your work for every regimental surgeon, and have requested, that these gentlemen may be instructed to adopt your practice in future."

The terrors evinced by the Poles themselves, when it is proposed to cut the plica, does not proceed, as M. Chamseru pretends, from national prejudices, but from many examples of dreadful accidents, occasioned by the imprudence which they have sometimes witnessed of cutting true plica when strongly attached to the head; hence, the Poles refused to submit to the operation, whatever may be the kind of plica they labour under, and we frequently see true plica entirely detached from the head, which remain until they fall of themselves, or until a new plica is formed. There have been instances of double or even triple plica. M. Jenker, teacher of Surgery at Berlin, has in his possession, a true plica eleven ells in length: plica of this description are surely unknown to M. Chamseru.

I have seen an instance of a man attacked with a pleurisy, whose pains ceased the moment that his hair (which was perfectly sound two hours before) became truly plicous. I have also seen apoplexies, convulsions, and epilepsies disappear immediately on the plica being formed as a crisis. In my large work, I enter upon all these causes at greater length. I have observed phenomena of a most extraordinary kind in the operation for cataract; *i. e.* in cases where the liquor of Morgagni was opaque, the crystaline remained perfectly clear and transparent in plicous patients. Since the appearance of my work on plica, I have undertaken fewer hazardous operations in such patients, and on this account, I have had the good fortune to restore to sight several blind persons, without any other treatment, and without the most trifling operation. It is proved beyond doubt, that in no country in the world, are there so many blind persons cured as in Poland, particularly those who are attacked with amaurosis, the most formidable of all the diseases of the eye: I do not allude to the ordinary diseases of that organ.

I have confined myself to the foregoing examples, because I think them sufficient to fulfil the object I had in view, namely, that of refuting the assertions of M. Chamseru. The cause of humanity, and above all, the inhabitants of the North of Cracow would be considerable gainers,

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gainers, if as this author alleges, the plica polonica was not a disease; but it is very difficult to retain the opinion of more than 700 authors, and it is still more difficult to extirpate an endemic disease, by hazarding a theory which cannot be supported by positive facts.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AMONG the various papers which have been published in your Journal, on the existing state of the Medical Profession in this Empire, I do not recollect to have noticed one from Essex. This induces me to offer you what appears to me to be the most prominent features of our situation.

To begin with our M. D.'s, they are unquestionably men of learning and professional skill, and many of them act from honourable motives for the interest and welfare of the inferior branches of the profession; I wish I could say thus much for "all." But if a physician who enjoys a very extensive and lucrative practice, descends beneath the dignity of his profession, in recommending (either in a direct or indirect manner) his prescriptions to a favourite druggist, to the material injury of the apothecary, whom he studiously avoids; and when compelled to meet him, conducts himself with all the parade of conscious superiority and indifference, far unlike that confidence and respect which ought to be kept up between the physician and apothecary, not only for their individual comfort, but for the safety of the patient: I say, if a physician conducts himself thus, he can only be biased by selfish and unworthy motives, disgraceful to his character and profession; but disgraceful as it is, truth bids me declare, that one instance at least of this kind exists among us.—I am disposed to believe that most of the retail druggists are able to compound a prescription faithfully, but still it is not their province, and the general practice of it lessens materially the honest and necessary emoluments of the apothecary. I say "necessary," for surely an apothecary ought to obtain a respectable and comfortable competence for his labour.—We have also a physician who prescribes and compounds his own medicines, and also practices as a surgeon and ac-

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coucheur. This I apprehend is not a very unusual case of irregularity.

Retail druggists have very much increased within a short period of time. This appears to arise from the custom of their compounding prescriptions becoming daily more prevalent, and from this custom we may fairly date the origin of a very serious event confined to the lower classes of the community. For by compounding prescriptions, the druggist acquires the knack of "prescribing" himself! thus uniting in his own person, the offices both of "physician and apothecary." Many of them acquire by this means no inconsiderable practice among the poor, their charges being lower than those of the apothecary; at present, this it appears can only be prevented by regular practitioners adapting their charges to the abilities of the patient; perhaps this is now practised to a certain extent, though not sufficiently. A man actuated by benevolent motives of this kind, will eventually obtain more deserved reputation, respect, and even emolument, than he who insists upon the same remuneration from all patients indiscriminately. I wish this spirit of liberality was more prevalent; where it does reside, the druggist can do but little harm.*

Uneducated men, stiling themselves "surgeon-apothecaries" and men-midwifes, are with us not so numerous as in many parts of the kingdom; still we have a few whose ignorance and presumption are alike notorious. I know one of these shameless pretenders, who in attempting to divide the frenum of a child's tongue, thrust his scissars far enough to divide a branch of one of the lingual arteries, which brought on a hæmorrhage that destroyed the infant in forty-eight hours! The mother of this infant entertained a vulgar, and for the most part, an erroneous notion, that the child was tongue-tyed, and first brought it to a surgeon with whom I then resided. Upon examination, the frenum appeared naturally and perfectly conformed, but the foolish parent it seems could not be made to believe this.—On another occasion, this man pronounced the presenting part of a "Psoas abscess," a "Bubo!" and immediately set about salivating the sufferer, who was a married

* What is here said, does not apply to the poorest classes, because they are (what is usually termed) "farmed" for a stated salary. It is the inferior tradesmen I allude to; they are not allowed a "parish doctor," of course they pay for medical attendance themselves, though many of them can no better afford it than the husbandman.

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married man. The poor fellow was convinced of his own innocence, and had no reason to suspect his wife's fidelity, and not being satisfied with this decision, he some time afterwards applied to several other surgeons, who immediately discovered the error, but too late to afford the man a hope of recovery, as the favourable moment had gone by, and the man's constitution was under the influence of mercury.*

Itinerant quacks are gradually disappearing, but we have many resident "lady doctors," who bountifully dispense "infallible remedies" for St. Anthony's fire, jaundice, sore breasts, &c. Their practice and fame surely ought to be confined to the lower classes, and yet it is no uncommon thing for opulent members of society, (who have little else to do, but to nurse their imaginary complaints,) to resort to this kind of quackery after having exhausted the patience and "skill" of their regular medical attendants.

I think the worst evil of all, as it effects the welfare of society, is the increased consumption of "patent medicines," connected with "domestic quackery." Buchan is the "oracle" which these domestic followers of Esculapius consult; with this book as a guide, parents do not hesitate to administer medicines to their children, servants, and dependants; perhaps nine times in ten no harm may result, but fatal diseases often make their approach in an insidious manner, and medical advice is only called in time enough to witness the last, but ineffectual efforts of nature; but not time enough to catch the favourable moment when the rapid strides of disease might be arrested, and the sufferer snatched from his impending fate.

Credulity and confidence are the constant companions of ignorance; and the mind is readily captivated by promises, especially if they are couched in ambiguous language. Empirics take advantage of these circumstances, to deceive a credulous public, and find a ready sale for their

* I could adduce a parallel instance of ignorance in a youth who left the Borough Hospitals, about twelve months since, after having had all the advantages that the present system of education for a surgeon-apothecary affords. This "self-taught" genius applied a "hernial truss" to a "suppurating bubo!" This is a strong proof that the present mode of education adopted at the public schools in the metropolis, comprising a "general attendance on lectures," is too lax and insecure. The acquirements of the pupil should be ascertained by strict and impartial examinations, that the profession may be secured against the disgrace entailed upon it by the admission of unworthy members.

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nostrums. They also receive the sanction of the legislature; and one would think they find but little difficulty in obtaining "noble" and "dignified" attestations to "surprising cures." That men of the first rank and preferment in society, should condescend to prostitute their names, to answer the sordid views of individuals, to the injury of the community, is a matter of astonishment as well as regret to your humble servant,

AN ESSEX PRACTITIONER.

February 7, 1810.

P. S. From the reputable testimonies adduced in your Journal respecting the medicinal powers of cobweb, I was determined to give it further trial, when opportunity offered; a few days since an inveterate ague presented itself. The patient had laboured under an irregular intermittent for many months, which at last assumed a regular quartan form. I prepared these pills, each containing five grains of the most recent webs that I could find, after a careful search. I directed the patient to take one of these pills at intervals of two hours, managing so that the last should be taken about half an hour before the expected fit. The man obeyed my directions punctually, but unhappily for him obtained no relief or abatement in his disorder, and the only effect he could attribute to the pills, was a pain in his bowels.

Since writing the above, I received a letter from a friend at Edinburgh, in which he informs me, that Dr. Gregory and the College of Physicians are at variance from an extraordinary cause. The Members of the College wish to make up their own prescriptions! This Dr. Gregory refused to accede to with scorn, and he is about to publish his reasons, or defence. I hope we shall soon hear more of this subject.

Mr. PECK'S OBSERVATIONS ON THE LEECH WORM.

Changes that I have observed in the Animal before any particular Alteration of the Weather.

1. WHEN the leech lies motionless at the bottom of the glass, and is frequently in a spiral form, the weather in summer will be serene and beautiful: the same denotes clear frosty weather in winter.

2d. If

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2. If it creeps up to the top of its lodging, it will rain within twenty-four hours in summer, and snow in winter.

3. When the leech gallops through its limpid habitation with swiftness, it denotes wind, and seldom rests until it blows hard.

4. When the leech lodges almost constantly out of the water, and discovers uncommon uneasines in violent throes and convulsive-like motions, a storm of thunder and rain will succeed.

Method of keeping Leeches.

1. Put a few into an eight-ounce phial two-thirds full of spring water, with some fine sand or moss at the bottom. As the leeches have no other evacuation but through the pores of the skin, which passes from them in perspirable matter, and adheres to the body in the state of slime, which, if not timely removed, prevents these evacuations, and causes the death of the worm; the use of sand, or moss, is, that it may rub the slime off its body, which afterwards floats in the water. Over the top of the phial tie a piece of leather pricked full of holes to admit air.

2. The water must be changed once a week: spring water is the best. Sometimes it is necessary, when there is a great change of temperature between the water and that contained in the phial, only to put half or two-thirds of the fresh to the other. Leeches should be kept in a cool situation in summer and a rather warm one in winter.

3. The leeches that have been used for bleeding should be kept in a separate phial till they appear perfectly well.

Directions for using Leeches in Bleeding.

1. It is necessary to clean the skin from any foreign matter * that may have been applied or adheres to it, with soap and water: afterwards rub it dry with a clean cloth, as liniments, &c. which are frequently applied in cases of bruises, or sprains, prevent them from taking hold, and if any do so, they die: any part where hair grows must be clean shaved, to prevent the hair from annoying them. These are precautions that are necessary.

2. When leeches are applied, the patient should be in as horizontal a position as possible. Then take a wiue or any other glass large enough to give room for the quantity that it is wished to take hold at once, being much better

* Such as the limentum saponis, solutio ammoniæ volatilis, &c.

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than the fingers; it gives the worms free motion in their circumscribed limits, retains them in their proper place and supports them from falling. The glass should be reclined on one side to admit a free access of air. The leeches should be chosen large, to answer their purposes the more effectually. When they seem sufficiently filled, a small portion of salt should be put to their mouths, which will cause them to fall off, being better than taking them with the fingers, as it bruises them.

Treatment of the Leeches after they are satiated with Blood.

Place the leech on a clean plate; take a little common salt rubbed fine, about the size of a pinch of snuff, and place it in contact with the mouth of the worm; it will remain a short time in a state of torpor, after which it will disgorge part of the blood; a little more salt may then be placed near its mouth, repeating it until it is all disgorged, taking care that no part of the salt touch any other part of its body, which blisters, and is frequently the death of the leech. When the worm returns to its natural size, it may then be put into a bason of water; if it has received no injury it will frisk about and appear lively, if sickly, it will sink to the bottom; should this be the case, place it in a separate phial till well. Every leech should have a clean plate to disgorge itself on.

These observations have occurred in practice; and I am convinced that if they are strictly attended to, the mortality amongst leeches will be much lessened.

N. B. Those who wish to use a leech as a weather-glass, should choose one that has not been used for bleeding; for after they have been used they are frequently sickly, and will bury themselves in the sand for days together.

On Expectorated Matter. By George Pearson, M. D. F. R. S.

(Abridged from the Philosophical Transactions for 1809.)

THE attention of physiologists has been very much withdrawn, for the last half century, from the consideration of the different states of the circulating and secreted fluids, in consequence of the opinion that the nervous and fibrous, or muscular systems, can afford satisfactory interpretations of the phænomena of living beings; and on account

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count of the disgust produced by the visionary properties and groundless hypotheses, originating in the humoural doctrines of Galen. But late experiments have manifested, that various things taken into the stomach can be made at pleasure to produce considerable effects, by impregnating sensibly the blood and urine, as well as the milk, sweat, and perhaps saliva. Further, the fine experiments of Professor Colman have shown, that the contagious glanders may be excited in the ass, by the transfusion of the blood of a glandered horse, and the matter from the nose of the glandered ass can produce this disease in the horse or the ass.* Hence I apprehend it is reasonable to expect, that the further investigation of the properties of the animal fluids will afford gratifying instruction to the researcher in natural science, and important practical information to the physician.

"On the present occasion, I desire the honour of communicating the knowledge I may have acquired, by investigating the properties of expectorated matter secreted by the bronchial membrane. The appearances of this substance serve to regulate the judgement of the physician concerning several diseases of the lungs; but especially of that of pulmonary tubercles, which yearly destroys 120,000 to 140,000 subjects of the United Kingdom. It is fit that I remark, that I do not notice in this paper the ingenious experiments of several learned chemists; because by so doing I should be led into a detail of too great extent for my design.

"The numerous varieties of expectorated matter, according to my observation, may be arranged and characterized under the following seven heads:

"I. The jelly-like semi-transparent kind of a blueish hue, excreted in the healthy state.

"II. The thin mucilage-like transparent matter, so copiously expectorated in broncial catarrhs.

"III. The thick opaque straw-coloured, or white and very tenacious matter, coughed up in a great variety of bronchial and pulmonary affections; especially in that of tubercles.

"IV. Puriform matter secreted without any division of continuity, or breach of surface of the bronchial mem-

* Mr. Colman alleges, that there is not a sufficient quantity of blood in a single glandered ass, to excite the glanders by the transfusion of blood into the horse.

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brane, very commonly occurring in pulmonary consumptions.

" V. The matter which consists of opaque viscid masses, together with transparent fluid; or the second sort above stated, with nodules of the third or fourth kind.

" VI. Pus from the vomicæ of tubercles.

" VII. Pus from vomicæ by simple inflammation of the lungs, and without tubercles.

" Other kinds of matter are occasionally coughed up, such as calculi—masses of self coagulated lymph—serous fluid—blood itself—and perhaps the vascular substance of the lungs; but I do not write on these matters, because they either do not belong to any particular recognized disease; or they are rare occurrences in some well known disease, and are too obvious to require description.

" § I. *Sensible or obvious Properties.*

" 1. *The jelly-like matter*, as already said, is excreted in the best health, as well as sometimes in disease. It is mostly coughed, or hawked up in a morning soon after a night's repose, during which it seems to accumulate. A few masses, or nodules, then appear of the consistence of jelly, and of the size of a pea to a hazle nut. It is also at any time liable to be excreted, in consequence of various extraneous matters irritating the fauces, to the amount of a few nodules. It is of a greyish colour, or inclining to blue, with black specks; and it is rarely whitish in nodules. The consistence is that of jelly, but of much greater tenacity. It has a barely perceivable taste of common salt, or muriate of soda. It commonly floats on water, but by agitation to disengage air bubbles, it sinks. It has no smell. To the naked eye, or assisted by a single magnifier, this matter seldom appears uniform, but consists of a mixture of opaque and transparent masses of irregular figures. With the compound microscope, spherical particles were perceived, though few in number, when duly diluted. The presence of an alkali I could in no instance perceive, by means of the usual tests, namely, turmeric paper, litmus paper slightly reddened by vinegar, and cloth stained with violet juice; nor was an acid denoted by means of litmus paper, except when I had reason to believe it was derived from various acid substances taken with the food, or drink, adhering to the inside of the mouth and fauces.

" 2. *The mucilage-like expectorated matter*, according to my observation, occurs much less frequently than the other

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other sorts. It appears suddenly in great abundance in certain bronchial catarrhs. I have seen it to the amount of two or three pints in twenty-four hours. It is also secreted, but less copiously, in paroxysms of spasmodic asthma, and of the hooping-cough; and but rarely in pneumonic or pleuritic inflammations, and in some chronical organic diseases of the heart and lungs.

"This matter is a transparent uniform fluid of the consistence of white of egg; or of a mucilage compounded of about one part of arabic gum, and four or five parts of water. It is colourless—has a fleshy smell—has a brackish taste. After standing eight or ten hours, a deposit takes place of fibrous, leaf-like, or curdy masses, some of which are seen suspended in the clear fluid. In some cases nodules of opaque thick ropy matter, at certain times, accompany this mucilage-like matter. Under the simple magnifier I perceived irregular figured masses partly in motion and partly suspended. With the microscope, globules were seen; but larger considerably than those of the blood, and much less numerous. With the usual tests there were no indications of alkali nor of acid, provided the matter was unmixed with other things. It usually floated, or was suspended in water, when first expectorated; but on standing in the water it fell to the bottom, evidently owing to the disengagement of air-bubbles.

"By standing exposed to the air in warm weather, it sooner grew fœtid than pus of abscesses; without becoming opaque. Neither could I render it opaque or thicker, by exposure to a stream of oxygen gas for an hour; or by exposure of it in a jar of this gas for a month.

"3. *The opaque ropy matter* above mentioned.

"1st. It is secreted most copiously in that very common, and extensively epidemial disease of our climate, the *winter-cough*, occasioned by tubercles, to the amount of half a pint to a pint in twenty-four hours; especially during the winter season for several successive years, and sometimes during the whole of a long life, after the age of forty or fifty years. 2dly. It is often the expectorated matter of the pulmonary consumption of young persons, also occasioned by tubercles, but frequently mistaken for the pus of abscesses or vomicæ. 3dly. It appears, oftentimes, in pneumonic or bronchial inflammation with fever, seemingly being a beneficial discharge; as well as in some instances at the close of a fever without concomitant inflammation of the lungs. 4thly. A severe paroxysm of spasmodic asthma is often terminated in the excretion of this

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this kind of matter. 5thly. A secreted substance of this sort is sometimes expectorated in various chronical organic diseases of the lungs, the heart, aorta, and parts contiguous to the lungs, which occasions difficult transmission of blood through them.

"In all these instances the matter by expectoration is of the consistence of thick cream, or of thin toasted cheese; so tough as to hang in the form of a rope, four or five inches in length, on pouring it from one vessel into another. Its aggregation is such that it is readily detached in large masses from the vitreous surface of vessels. It is not unusual for small black, or reddish spots, and streaks, to appear on the surface of this sort of expectorated substance. A pretty large bulk of it is seldom throughout uniform; but it is frothy, and exhibits opaque masses of various hues with transparent matter interposed. The colour is yellowish, straw-coloured, and white, or grey; it also, though seldom, is greenish and blueish. The taste asserted by patients, is, in their own terms, various, namely, saltish, nasty, faintish, sweetish, luscious, or like that of a sweet oyster,—a sharp or sour taste is the most rare. The only smell which I have perceived is that of flesh, but very frequently there is none. When any offensive or pungent smell was perceived, immediately after expectoration, I have always found that it was owing either to the foulness of the vessel in which it was received, or it was from extraneous matters in the mouth, and from decayed teeth.

"This opaque viscid substance, being duly diluted with distilled water, was examined with microscopes of common as well as of very great powers: by means of any of them, crowds of spherical particles were seen passing to and fro in currents, not unlike those of the blood; except that they were larger. These globules I could not destroy, nor alter in form, by trituration; nor by long boiling in water; nor by exsiccation, and again dissolving in water; nor even by coagulation with mineral and vegetable acids, with alcohol, with sulphuric ether, or with tannin, and alum; nor by mixture with caustic alkalies in a proportion which leaves the liquor turbid; nor for some time after the putrefactive process had appeared. But these globules disappear with such a proportion of sulphuric acid as detaches charcoal; or of nitric acid, and of liquid potash, as produce a clear solution; also by charring by fire. It is perhaps superfluous to remark, that these atomic globules are quite different from the air bubbles usually entangled

in

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in this kind of matter, as perceived by the microscope; the latter differ much from the former, in being of far greater magnitude—in being less numerous—in being transparent, and on disappearing on agitation, or heating the matter, or even by mere standing.

"For the most part this expectorated substance swims on water; but by agitation or stirring to disengage air bubbles, or by merely standing, it sinks. Some of the lumps suddenly hawked up, immediately fall to the bottom of a vessel of water. No signs of either acid or alkali, appeared on the trials of this matter with well known reagents, provided it was free from extraneous matter; but it was apt to betray acidity from things taken with the food or drink.

"4. *Puriform matter.* I have seen this matter expectorated in several diseases in the quantity of two or three ounces to half a pint in twenty-four hours, on some rare occasions, without any breach of surface. I believe it would be considered by every one to be *pus*, having the properties commonly admitted to be those of this substance. It will, however, perhaps, only be just to call it *puriform*, for the present, as it appears to me probable, that I shall hereafter be able to show that it possesses properties not belonging to pus of abscesses, although in the obvious, or sensible properties, it is similar to such pus. Accordingly this expectorated matter is not only opaque, white, or yellowish, and thick as the richest cream, but it also has not more tenacity than cream. It is not apt to entangle air, and therefore it immediately mingles with water, rendering it milky; and presently subsides to the bottom, leaving the water clear, or at least whey-coloured. It appears to the naked eye uniform in its texture; and nearly so under the simple lens: but under the microscope thousands of globules similar to those of the blood are seen, which are indestructible as those above related belonging to another kind of expectorated matter.

"The substance, of which I am now speaking, is most frequently excreted in the latter stages of pulmonary phthisis, for many weeks successively. It is taken for granted that this matter is from a breach of surface or ulceration; but on examination after death, such a state was not found, in many instances, under my observation, although the lungs were as usual full of tubercles and vomicæ. This puriform matter is occasionally expectorated in certain other diseases. The last summer my colleague, Dr. Nevinson, furnished me with several ounces of this sort of substance,

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substance, but of a greenish hue, and of the consistence of thin cream; which was expectorated by a woman in the third week from the attack of the measles. In a few days she died. On examination of the lungs very carefully, by the excellent house surgeon of St. George's hospital, Mr. Dawes, no ulceration could be discovered in the trachea or in the bronchial tubes; nor were any tubercles or abscesses found in the lungs. The patient, according to my information, had expectorated more than a pint of this fluid every twenty-four hours for a week before death. In another hospital case, a man laboured under a cough with spitting of matter, which all who saw it called pus, and as usual it was considered to arise from an ulceration, or suppurated tubercles; but, on examination after death, the disease was ascertained to be condensation of the lungs, to the consistence of liver, with water in the cavities of the chest, and nothing more.

"5. *Opaque viscid matter of a third, and perhaps fourth sort*, above distinguished, appearing in nodules, and irregular-figured masses, *mixed with transparent slimy matter of the second sort.*

"It is not unusual to see the mixture of these two different kinds, from severe fits of coughing in that constant epidemy of the British islands, the winter chronick pneumonia.

"Different parts of the bronchial membrane being in different states, may account for the secretion of the two different matters. This seems more probable than that these different matters should be secreted from the same part; although it is true that the same part does secrete at one period transparent thin slime, and at another an opaque thick matter. The former is occasioned by great irritation of the membrane, and the latter is the effect of a more gradual secretion with much less irritation.

"For the sake of brevity, I avoid a further description. The practical application of these observations, however important, would not be suitable in this place.

"The sixth and seventh kinds of expectorated substances being secreted after a quite different manner, and being very different in their nature from the preceding five kinds, I shall not give an account of them in this paper."

[The author then describes at large, and with much precision, the effects produced on expectorated matter by the agency of caloric; of alcohol of wine, of water; and of acetous acid—also some experiments with different objects from any of these: but we confine the remaining part of the

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the present extract to his *Conclusions*, as containing that kind of information which will be most acceptable to the generality of our readers.]

"*Conclusions.*

"1. From the preceding experiments and observations, and from others which I might have related, it does not appear that the various kinds of expectorated matter, page 215, differ in the ingredients of their composition, but merely in the proportion of them to one another.

"2. It has been shewn that expectorated matter consists of coagulable, or, as it is also now frequently termed, *albuminous* animal substance, and of water impregnated with several saline and earthy bodies;—that the largest proportion of the animal substance, which may justly be called an oxide, amounts to one twelfth, and in some very rare cases to one-tenth of the expectorated matter, reduced to a brittle state by evaporation; and that the smallest proportion of this oxide, in rare instances, amounts to one forty-fifth of the expectorated matter; but that the usual proportions of it vary between one-twentieth and one-sixteenth of this coagulable oxide to the evaporable water, that is, between five and six per cent. of the expectorated matter.

"3. The impregnating substances have been shown to be muriate of soda, varying commonly between one and a half to two and a half per 1000 of the expectorated matter—Potash varying between one-half and three-fourths of a part per 1000—Phosphate of lime about half a part of 1000—Ammonia, united probably to the phosphoric acid; phosphate, perhaps of magnesia; carbonate of lime; a sulphate; vitrifiable matter, or perhaps silica; and oxide of iron. But the whole of these last six substances scarcely amounting to one part in 1000 of the expectorated matter, it would be useless to estimate the proportion of each of them. It is very probable that the proportions and quantities of these ingredients vary much more than now represented in different states of disease and health.* It is very probable also, that some of the ingredients may occasionally be absent, and others of a different kind be present, agreeably to

* In one case, the opaque expectorated matter in a pulmonary consumption having been exicrated to brittleness, became almost liquid after a night's exposure to the air.

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to the different states, on different occasions, of the other secretions.

"4. It is manifest that the different states of consistence of expectorated matter are owing to the proportion of albuminous or coagulable oxide; but I purposely avoid giving an account of the different conditions of health, on which the differences of consistence depend.

"5. The thicker the matter, the smaller I commonly found the quantity of saline impregnation. Hence, in sudden and copious secretions of the bronchial membrane, the matter is asserted to be salt, and to feel hot. In such instances, the proportion of coagulable matter was small, but that of the saline impregnations, particularly of the muriate of soda, and neutralized potash, so great, that the exsiccated expectorated substance tasted very salt, and presently grew moist, or even partially deliquesced; but the opaque ropy or puriform matter afforded a much larger proportion of exsiccated residue, which was but slightly salt, and generally only became soft on exposure to the air. This property of growing moist depends upon the potash.

"6. Each of the human fluids, according to my experiments, contains neutralized potash; at least, this is the fact of the blood, dropsy fluid, pus of abcesses, and pus secreted without breach of surface; the fluid effused by vesicating with cantharides; the urine; and in course in the very abundant secretion from the nose by a catarrh. The alkali being united to oxide of animal matter in these fluids, it is easily demonstrable.

"7. Although I think I have discovered many properties by which expectorated secretion may be distinguished from expectorated pus, I shall not speak of them, on this occasion, further than just to observe that the saline impregnation of pus, particularly that of potash, and muriate of soda, is in very much less proportion than in expectorated secretion; and hence it does not become moist after exsiccation, on exposure to the air.

"8. It has been, I believe, uniformly asserted, that the circulating and secreted fluids are impregnated with soda; that it is especially in the matter secreted by the bronchial membrane. The experiments of others must confirm or disprove mine. It seems, however, much more reasonable, that the human fluids should be found to contain potash than soda, united to some oxide or destructible acid; because the former alkali is daily introduced with the vegetable food, and with the drink of fermented liquor; and it is

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is as little likely to be destroyed, as the muriate of soda also induced in the very same way. But our food and drink, do not, commonly at least, contain the soda united to a destructible acid, or an oxide.

"9. It is plain, from the preceding experiments, that expectorated matter belongs to the class of coagulable fluids and not of gelatinizable, or, as commonly asserted, mucous fluids. It differs from the coagulable fluid, serum of blood, in forming a much thicker fluid with a much larger proportion of water: for serum, and also the water of blisters, is quite liquid, although they afford, on exsiccation, one-twelfth to one-eleventh of their weight of brittle residue, while some kinds of expectorated matter, of the consistence of mucilage, afford only one fortieth of dry residue, and others of the consistence of thin paste afford only one-fourteenth of residue.

"10. But for the unavoidable extent of this paper, I should trouble the learned Society with various other conclusions and remarks, especially concerning the *globularity* of expectorated matter, which seems to indicate organization. Although Antonius Van Lewenhoeck, above a century ago, discovered the globularity of the blood, and even noticed it in other animal fluids, neither he, nor any other person, as far as I know, investigated the subject in any fluid but the blood, till, by Mr. Home's acuteness and industry, at a very early period of life, it was observed in pus. I have in this paper related, that expectorated matter, especially the opaque ropy kind, as well as the puriform, is full of globules; and that, except by such agents as destroy charcoal, they are scarcely destructible. Do these spherical particles consist chiefly of organized carbonaceous matter?"

To Dr. ADAMS.

DEAR SIR,

AN erroneous opinion having been entertained in the neighbourhood where the following Case occurred, that the patient died of Hydrophobia, I think it may be proper to insert in your Journal the account Mr. Wakefield, who attended her, has sent me of the disease, and to subjoin the appearances on dissection.

SIR,

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"Sir,

"ON the 16th of December, Ann Fidler, No. 14, Union Place, Battle Bridge, received a lacerated wound on the face from the bite of a large dog, which we supposed was not mad, from his remaining tearing the child, until a man with difficulty drove him away. The wound healed kindly, and she remained perfectly well until the 2d of February, when she had an attack of fever, attended with sickness at the stomach, which an emetic removed. On the following days, that is, to the 6th, the fever continued with but little sickness, but attended with general pain in the limbs and head, for which she was taking saline and antimonial medicines. On the 6th she complained of violent pain, attended with sickness. I applied a blister, and on the 7th found the head much relieved; but a sudden difficulty of swallowing came on, insomuch that every thing she attempted to swallow, instantly returned by the nostrils, but unattended with any dread at the sight of liquids. In the evening her existence was suddenly closed, as if by suffocation. There was delirium at intervals during the whole of her illness.

"I am, Sir,

"Your obedient servant,

"THOMAS WAKEFIELD."

I saw this girl, at the desire of her parents, in the afternoon of Wednesday the 7th of February, which was the last day of her illness. There was then no appearance which indicated the approach of dissolution. She was sensible; her pulse about 120, regular, and tolerably strong. I desired her to drink some liquid which was in a cup by the bed. She took it into her mouth, and endeavoured to swallow it, but it was instantly thrown back with a considerable quantity of mucus. The attempt to swallow was however made without any repugnance, and the failure of that attempt evidently arose only from absolute inability to exert the muscles of deglutition. I examined the throat, and found the left tonsil, and the arch of the palate on that side, a good deal enlarged; but not sufficiently to explain the difficulty or rather impossibility of swallowing, which her mother distinctly stated had only come on late on the preceding day.

I was much surprised when I was informed she had died suddenly that very evening, especially as there had not been the smallest difficulty of respiration. The parents and

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nd myself were equally desirous that the cause of her death should be ascertained by dissection; I therefore examined the body on Friday the 9th instant, in the presence of Mr. Wakefield and several other medical gentlemen.

I first of all took out the larynx, pharynx, and tongue, *en masse*, in order to ascertain the state they were in, with as little disturbance as possible. The posterior half of the tongue was swollen, and the fungiform papillæ appeared in consequence much larger than usual. The glottis was closed completely, and the larynx filled, by a quantity of viscid, glairy mucus, which it was rather difficult to detach, and which had evidently been the immediate cause of her death, by falling down and producing suffocation, for there was no mucus whatever found in the trachea below the larynx, or in its branches, nor was the inside of the larynx itself inflamed. The pharynx showed slight marks of inflammation; and on laying open the œsophagus, the inflammation appeared to have increased in regular gradation from its upper part to its termination in the cardia, where it was coated by a layer of coagulable lymph; and from about an inch above its termination, at the posterior part, was completely gangrenous, and tore with the slightest force. The appearance of inflammation extended into the stomach for about two inches round the cardia, chiefly however on the posterior part, in a continued line from the gangrened œsophagus.

The stomach contained a considerable quantity of acrid matter, tinged with bile. I never recollect to have seen a stomach so generally eroded by the gastric juice in so short a period after death.

The brain was in every respect healthy; and no fluid whatever effused, either between its membranes or within the ventricles.

There was something peculiar in the effluvia from this body, which though not offensive from putrefaction, yet gave me and one of my pupils a severe head-ach, which continued till the next day.

I am, &c.

T. CHEVALIER.

South Audley Street, Feb. 16, 1810.

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Case of Hepatic Affection. By Dr. CRAWFORD *of Baltimore, America.*

[Communicated to Dr. BRADLEY by Dr. R. J. THORNTON.]

MR. P. aged above 60, short, fat, a large head, and rather florid, came to this city from Norfolk, in the beginning of October, 1807; he lodged at the Indian Queen. I was sent for to visit him on the 13th, at 4 P. M. He was suffering from excessive pain in the hepatic region, extending to the parts in its vicinity, attended with nausea, and he had been some time without an alvine evacuation. His pulse was small and quick; ordered a saline purgative, which operated copiously, and afforded him sensible relief.

At noon, finding the febrile action still continue, notwithstanding the freedom with which the bowels were emptied,

℞. Camphoræ ℈j. spt. nitri dulcis ℥j. m. cochl. parv: pocillulo aquæ tepidæ edulcoratæ quaque hora sumat. This created no disturbance in the stomach, and in the evening the fever considerably remitted; at 10 o'clock P. M. he was free from uneasiness.

14th. He had a good night, but awoke this morning with a return of the uneasy sensations in the abdomen.

℞. Calomel. camphoræ aa ℈j. Pulv. antimon. ℈ss. Pulv. rhei ʒss. m. fiat pil. 16. æquales. Cujus capiat duas 2nda quaque hora donec alvus responderet mitte spt. nitri dulcis ℥j. cochl. parv. quaque hora sumat.

At noon he had taken eight of the pills, all of which were retained; the pain in the epigastrium distressing, and the pulse was quick and small, repr. mist. salin. ut hesi addendo tinct. opii compos. ℥ss.

He continued all the afternoon to increase in suffering from the pain in the epigastrium, and began to despond of life, having a constant *jactatio*: obtained only three small inefficient stools, although the mixture was quietly retained in the stomach. At 7 P. M. Dr. Littlejohn was called, and proposed venesection, from which, perhaps, I had been too much deterred by the smallness of the pulse. Eight ounces were taken from the arm. It was of a dark modena red, as it flowed from the orifice. The pulse soon after rose considerably. We gave him immediately afterwards a double dose of the saline mixture; but this was rejected. We had then recourse to ol. ricini, which remained, and in a short time operated freely. At 10 P. M. we

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we found him much easier, the paroxysm having gradually diminished and terminated by a gentle diaphoresis.

15th. We visited him at 7 A. M. He suffered much in the night from affliction in his abdomen; had since last evening several small stools without relief. We repeated the ol. ricini; by noon it had operated, but effected no benefit.

℞. Cal. ʒss. pulvs. opii gr. 3. m. f. l. a. pil. 6 æqs. unam 2nda quaque hora. S. Ordered an emollient enema, and warm salt in a bag to be applied to the part affected. At 4 P. M. some evacuations had been procured; but no diminution of suffering. The two first pills gave no disturbance. The third became so offensive he could not retain it. We agreed to give him the following purgative.

℞. Pulvs. jalapii. calomel. aa ℈ss. Sacchari ʒss. m.

This proved acceptable, and operated sufficiently, assisted by another enema. About five, the paroxysm which had endured from an early hour yesterday morning, twenty-four hours, with scarcely any abatement, now remitted, and he fell into a profound sleep. In this he continued until nearly 10 P. M. but alas! he again awoke, having a return of suffering; his pulse was 108, and no way diminished in strength, although he had been copiously purged. We endeavoured to alleviate his pain by diaphoretic anodynes, which, about 11 P. M. procured him a comfortable sleep, which continued until morning; but he awoke to a renewal of torment.

16th. At 6 A. M. the paroxysm recommenced. We repeated the saline mixture with the neutral salt; but this was not retained; we then gave him the same with cold infus. flor. cham. with no better effect. Ordered the pulv. jal. and cal. as before, which operated well; at 7 P. M. the pain was excessive; repeated the enema, and ordered an anodyne embrocation with volatile alkali.

17th. Had a restless night; a slight remission towards morning. Repeated the saline mixture; this occasioned flatulence; administered it with acid. mur. dilut. loco acid. limonum, which proved less offensive, and applied the anodyne embrocation diligently; pulse always soft, and ranged from 104 to 108; evening, having had no stool, repeated the enema.

18th. Again a bad night. The paroxysm had recurred with additional vehemence, and the pulse felt fuller than before; we ventured to take off about six ounces of blood, but an immediate failure of strength admonished us to desist. He continued very weak for several hours. When

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the reaction was restored, his eyes evidenced an approaching delirium. At 1 P. M. he was completely deranged, and incapable of articulation; we applied epispastics to his ancles and the nape of his neck.

19th. Had a very restless night; this morning more composed; the epispastics operated effectually; having more evidence of apyrexia, we ordered a decoction of cinchona, which he took without inconvenience. At 1 P. M. he was able to pronounce a few words; we applied epispastics to his arms. In the afternoon he coughed with some energy, and brought up some matter that was very offensive in smell, and resembled pus. We gave him the decoct. cinchonæ with wine freely. At 7 P. M. he was nearly restored to speech, and complained of a more acute pain to the right of the serobiculus cordis than he had yet experienced.

20th. Had a tolerable quiet night, and was this morning perfectly sensible, and in the full possession of his speech; he desponded of recovery, and suffered much from the pain in the right epigastrium, but felt no inconvenience from lying on one side more than the other, nor was there any affection of either shoulder, such as accompanies an adhesion of the peritoneal coat of the liver to the intercostal muscles, or the parietes abdominis. The blisters on the extremities were dry, but that on the neck discharged freely. His pulse was weak, soft, and quick, and the debility was great. We continued the decoct. cinchonæ with wine, both of which proved very acceptable, and he used them unsparingly.

Evening, no abatement of any symptom, and a slight subsultus tendinum was perceiveable. The disease from this time until the twenty-third, proceeded ith no other variation than is usual in the progress of such affections. He continued the decoction with wine; his bowels were kept open by encmas, and small portions of rhubarb were occasionally added to the doses of the decoction, with the desired effect. At 1 P. M. of this day, he had a smart rigor, which was succeeded by a higher degree of pyrexia than he had yet experienced. In the evening he was again deranged, and had two copious stools, by which he was much sunk. Whilst the pyrexia was advancing to its height, there was a strong pulsation in the epigastrium; that at the wrist was weak, and had an oscillation, which usually marks the formation of pus.

Being now satisfied that an abscess was forming, if not already formed in the superior gibbous part of the large lobe

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lobe of the liver, it became a question whether an opening was not immediately adviseable. We were pressed to undertake it by the patient, as affording the only possible means of saving his life, but were deterred from it by the following considerations.

The seat of pain was not confined to a particular spot, but occupied an area of, perhaps, more than an inch in diameter. There was no pain as before-mentioned, in either shoulder, and from these circumstances, no proof could be obtained that an adhesion existed between the liver and the external parts of the abdomen, which must be cut through to come at the abscess. Suppose these parts divided, and issue afterwards given to the contents of the abscess, wherein would the matter be received? The canula of a long trochar might, it is true, convey the principal part of it out of the body; but assuredly no small share would be admitted into the adjacent cavity. How far this would have defeated our purpose of remedying the disease, it is impossible to determine, but it certainly appeared to be too hazardous an undertaking. I have already stated, in my communication to you, on the seats and causes of disease, that in the Demerary hospital, I had often found an abscess in the internal parenchymatous part of the liver, where no adhesion to any of the surrounding parts was to be discovered. This strikingly appeared to be of the same description, and seemed to deny every hope to my mind, of the case being within the reach of human aid, we therefore declined the operation.

24th. The fever abated towards morning, when he obtained some quiet rest for several hours. About noon the paroxysm re-commenced, and continued increasing with great suffering through the whole day. Calomel camphr. and nitre in powders were administered, and quietly retained. This paroxysm was not ushered in with a rigor as yesterday; but 25th, was called to him this morning at four, when it recurred with great violence, to which a corresponding pyrexia supervened; a mercurial purgative was given, to open the bowels; an enema became requisite to effect this purpose. The fever abated towards evening; from its commencement the pain was very acute, still in the same situation. The pulse corresponded with the other symptoms. The fæces, of which he had two or three evacuations, were of a dark colour, and very offensive; this suggested a full dose of oleum ricini.

26th. No rest again until morning; the febrile action was less vigorous the whole of this day; the oil given last

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night did not operate; gave him a dose of calomel and jalap, but this was rejected. Appeased the irritation of the stomach by small and repeated doses of a solution sal. marin. in gruel, which, as I have often experienced, more effectually answered the purpose than perhaps any other means that could have been adopted; had no stool the whole of this day; towards evening he sensibly revived, the pulse was tranquil, and he felt stronger than since the commencement of the disease; this was a more marked intermission of suffering than had hitherto been noticeable; although a little attention to the foregoing account will evince that the malady, from its commencement, assumed, more or less, of a tertian type.

27th. Passed the night with little disquietude. The cathartics he took yesterday began to operate early this morning; either from this, or from some unusual exertion of the offending cause, he was purged smartly, and in consequence the pulse was much reduced; gave him preparations of the cinchona freely. Towards evening the perturbation of the system was renewed; and the matter expectorated, which had never ceased to be in large quantity, was tinged with blood; the cough was pertinacious all the evening.

28th. Some rest as usual towards morning, but the morbid distress was this day increasingly severe; the expectoration was more abundant than before, and still tinctured with blood.

29th. The febrile action was very little diminished the whole of this day; the matter expectorated, increased in quantity, was thinner, and instead of a sanguineous, was of a brown appearance. He complained less of pain, but there was a more circumscribed spot, of which, on pressure, he complained more than before. This was some inches anterior to the costæ. We had now a more marked proof of adhesion than had hitherto solicited our attention, but still insufficient, in our opinion, to warrant an operation, especially in so advanced a stage of the disease.

30th. Some sleep as usual towards morning, but also as usual, he awoke to renewed suffering. The sputation was again deeply coloured with florid blood, and in such quantity as to evidence great depredation in the seat of disease. In the evening, debility much increased, and his pulse became very feeble.

From this time to the period of his death, nothing unusual occurred, except that on the 3rd of November, he expectorated, with the pus, a substance of a fleshy appearance

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pearance as large as an almond. He expired on the sixth, the collection of pus, apparently in the thorax, and his incapacity to evacuate it, seeming to effect strangulation, and thus terminate his existence.

I sincerely lament that we were not allowed to examine the body after death; such diseases seldom occur here. To have ascertained whether any adhesion had been formed, so as to have made an incision safe, must have been an important acquisition. That an adhesion existed, when the seat of pain was at the advanced period of the disease more circumscribed, became sufficiently manifest, and that it was so situated, at the anterior part of the hepatic region, and clear of even the cartilages of the costæ, must have rendered an operation there perfectly safe. But repeated opportunities, both in the East and West Indies, of seeing issue given to the matter, when thus circumstanced, and unacquainted with any successful termination, I was deterred, at such a state of the malady, from countenancing the measure.

I was afterwards informed by very respectable medical connections of the patient, that the disease is not unfrequent at Norfolk, Virginia, and is there termed "Hepatic pleurisy." The appellation is certainly characteristic of the symptoms that occurred in this disease, but these do not fully correspond with what authors describe concerning it.

The symptoms adduced by Bianchi, in his Historia Hepatica, vol. I. p. 235, are "an acute fever with a pulse rather hard, difficult breathing; bloody sputation; a deep seated pain in the inferior part of the thorax, on the right; a very florid colour of the right, much more than of the left cheek. An icterical appearance of the whole surface, particularly of the eyes and tongue, and of all the secretions, especially of the urine, which is of a deep yellow colour. There is an intense dryness of the tongue and fauces; a very bitter taste in the mouth, and an insatiable thirst. Bile is constantly perspicuous in the sputation, and mixed with blood. An obtuse pain descends lower than the false ribs on the right side, a light pressure on which is complained of severely. Here a tumefaction is readily felt, occupying as much of the liver as in life is subjected to examination, which is hard and circumscribed. There is in that part an intense heat; a constant jactatio supervenes; and from the beginning, the thirst, the sense of heat, dryness of the fauces, and arridity on the whole surface of the body are importunate."

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The circumstances wherein our case differs from the above, is, that the icterical appearances were not observable until an advanced stage of the disorder; the seat of it was much higher up; no tumefaction was discernible; there was no difference of colour between the right and left cheek; both were very florid during the paroxysms. The intermissions with us were of short duration it is true, but sufficiently marked, and are not noticed by our Author. The urine, as with him, was never of a deep yellow, but towards the close of a very red colour; in both, the lateritious sediment, which he mentions elsewhere, occurred, and was first discovered in our patient on the sixth day, although it might have happened earlier. It is certain that the blood in the sputation was not, in our case, discoverable until the fourteenth day. In every species of pleurisy, I have uniformly observed, that an early appearance of blood in sputation, before matter was formed, proved a favourable omen; but if it were deferred till pus was manifested, the greatest danger might be apprehended. This is conformable to the aphorism of Hippocrates, 340, as cited by De Gorter in his Medicina Hipocratica, p. 806. "A sanguinis sputo purissputum, malum." This remark has been made by numerous authors, and may be received as one of the best established medical facts. Towards the close of the disease, nearly all the symptoms enumerated by Bianchi were conspicuous.

I feel unspeakable concern that I did not, when first called, clearly comprehend the nature of the disease. Copious depletion, and an energetic use of mercury, particularly the ointment, might have, perhaps, more effectually prevented the fatal catastrophe. But an insulated case, the smallness and softness of the pulse, and the absence of these pathognomonic symptoms which decidedly characterise hepatitis, were strong obstacles to the adoption of what would have certainly been the most appropriate practice, as circumstances proved when it was too late. The truth of this will not admit of a question; but when we consider the absence of the symptoms, which would have proved a sure guide at the commencement of the disorder, when alone the treatment suggested could have been adviseable; that our patient was at a tavern, a stranger, and that the venesection we made did not accomplish much benefit; some consolation may be derived from these unpromising concomitants; indeed, as the early symptoms were so anomalous, it is little to be wondered that such measures

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measures were not suggested either to my mind, or that of my colleague.

I have been always of opinion, that a history of unsuccessful cases was more capable of enlightening the mind, and leading to a correction of errors, than of those which terminate favourably. They suggest more caution; they awaken more reflection, and they urge to a greater exertion of our own sagacity, and beget a disposition less to depend upon the "ipse dixit" of others. Histories of successful cases have too often, at least, as much of the honour of the writer in view, as of those which are unsuccessful, the advantage of the reader.

I am, &c.

JOHN CRAWFORD, M. D.

Description of Sea Scurvy.

By Mr. J. Howe, Assistant Surgeon of His Majesty's Ship Princess Carolina.

In the history of this disease, as it is met with on board of ships, it will be found to occur to seamen after living on food deficient of its nutritive properties. They will first complain of inaptitude to motion; shortness of breath on any exertion; debility. On examining the gums, they will be found to have an appearance very similar to that produced by mercury, unaccompanied with spitting; the breath fœtid. On examining the feet and ankles, slight œdema; the tunica conjunctiva shows the blood to be deficient in crassamentum by its want of colour. If the disease runs on, and the person has formerly had sores on his legs and feet, these places will become livid, and soon afterwards break out in the foulest ulcers. The system is now so enfeebled as not to be able to generate new flesh, to repair the injury; however, it may be stimulated until the general health of the system has been first repaired. Bleeding of the gums will, no doubt, sometimes occur before death; but this is only now and then met with in the most inveterate cases.

I saw a case of Scurvy in Guy's Hospital, of a man who had never been at sea; he appeared less debilitated; no œdema; and the blood less serous than in those cases which are met with at sea. The purple spots on the skin, in this case, were very numerous; and there was hæmorrhage

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rhage from the gums. Persons most predisposed to this disease, are those who have lately recovered from any other disorder, and where the digestive organs have suffered from whatever cause, as fatigue, cold, &c. No man is proof against the disease, although some will bear the exciting causes longer than others, without suffering in an equal degree.

The exciting cause is living upon food not sufficiently nourishing. This subject has been much canvassed, and some erroneous notions are still entertained on the subject. Our principal food is animal and vegetable. Animal food, under particular circumstances, such as the heat of warm climates, and from hot temperature of the summer solstice in Great Britain, soon becomes putrid; and the stomach loaths such food. In putrid meat there can be no nourishment. From the period of the death of the animal, there is a regular gradation takes place between the time that it is wholesome food and that of its putridity; the degrees between these extremes of animal food is regular, and according to the degree to which it approximates to putridity, it is less nourishing, and consequently more liable to produce scurvy. Some doubt has prevailed whether vegetable food could produce scurvy. Vegetable food is liable to decay, and in its decayed state it cannot nourish and support the system; consequently, the system will fall into disease, from a want of regular nourishment. It is not from putrid animal, or decayed vegetable food being taken into the stomach, from any sympathy or action it has upon the stomach, that scurvy is produced; it is from the want of food that is capable of nourishing the system, on which the lacteals are capable of acting, and fit for the purpose of being converted into blood, which will support the system. Cullen's definition is, "In cold climates occurring after living on putrescent salted animal food, with deficiency of recent vegetable matter; debility, bleeding of the gums, spots of different colours on the skin, for the most part livid, particularly at the roots of the hairs. By taking in such food, the frame becomes debilitated, and the lacteals lose part of their accustomed functions; consequently, may be said to fall into a state of disease. The indications of cure are to excite the lacteals to their accustomed functions, and restore the tone of the system. The acids are found to answer the first indication, by exciting the action of the lacteals; and of these, the citric acid very justly holds the first place. Nourishing food, and that of easy digestion, must be employed

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ployed to restore the tone of the system; as the whole of the primæ et secundæ viæ are in a torpid and very weak state."

I think it worthy of remark, that amongst the predisposing causes sometimes may be reckoned despondency, caused by tyranny and oppression; and it will be found in all these causes, the prognostic is less favorable. When men have suffered much from punishments, and fall into disease, their situation is more hopeless, and mortality will be much greater, not only in scurvy but in every other disease.

I have asserted, that in putrid animal food there is no nourishment. Although it has been admitted by some, that the human frame cannot be nourished by putrid animal food, yet it is said that some other animals have the power to change putrescent animal food into nourishing food. I recollect having heard a lecture, read in support of this doctrine: Two pigs had lived in the sewers of the streets of Paris for many months, and there became very fat. But I cannot persuade myself to believe, upon so slight a foundation, a thing so apparently contrary to the principles of nature. In the sewers of Paris, much, no doubt, would float, which the stomach of man would certainly loath, but still be very wholesome food for pigs, as potatoe-peelings, cabbage leaves, &c.; and that which has been too coarse for the delicate lacteals of man, may afterwards prove food for the stronger vessels of the swine; for it is not putrescent food only the lacteals will not take in.

The beef which is supplied to the sailors on board his Majesty's ships when at sea, is meat that has been dead generally twelve or more months; this has been kept from putrefaction by salt: but although this meat is not in the least putrescent, it nourishes not the system equally well with fresh meat; and it may be kept even from putrefaction, until it has lost all its nutritive qualities. According to the nutritive quality of the food, the system is preserved in strength, or falls into disease (scurvy.) The chief vegetable food on which sailors live, is flour and biscuit: what length of time flour will keep before it falls into so much decay that it will not support the system, I cannot say, but I know that a great deal of the flour, served to the men belonging to his Majesty's ships, is in a very decayed state, and is by no means equal in supporting the system in strength with fresh flour. The biscuit which is supplied to the men, is generally eight or more months old;

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old; in this state it has lost much of its nutritive quality, and supports the system not so well as new bread; after eight or ten months, bread falls very rapidly into decay.

Sugar is supplied in the quantity of six ounces per week to each man; there has been enough already printed on the subject of the nutritive property of this article, in strengthening and fattening the negroes in the West-Indies, to prove it possesses great nutritive properties. How long sugar will keep before it falls into a decayed state, I know not; but I have seen rotten sugar served out to a ship's company, when the ship has not been eight months absent from England. I do not conceive sufficient care is taken that all those articles which are served to his Majesty's ships, are purchased in that state which will best preserve their nutritive qualities. These articles, after they are sent to the victualler's stores, remain there until all the quantity of the same article in the store, which was on hand at the time, is sent away, and on board. That which has been longest on board is first to be used. All this I conceive to be very right, and mention it only to shew the cause that the articles have been so long before they are issued to the men. The navy suffers much less now from this disease than formerly, in consequence of the judicious regulations of the commissioners for victualling his Majesty's navy; and I doubt not, still much more may and will be done for the sailor's advantage.

Why Cullen has made its occurrence in cold climates characteristic of the disease, I am unable to conjecture. The islands in the Pacific Ocean and the East Indies, are of a very warm temperature, where scurvy has brought so many seamen to an untimely grave; I much doubt if it does not oftener occur, and more die from this disease, in warm than in cold climates. It is not necessary that the food should either be salted or putrid, to produce the disease. Salt has no tendency to produce scurvy; and most of the beef on which those persons have been supported, which has produced the disease, has not been putrid; the salt has preserved it from putrefaction, but has not preserved all the nutritive properties of the beef entire.

Bleeding of the gums is considered one character; but many men have died of this disease where no hæmorrhage has taken place from the gums; nor is the skin always spotted. I shall leave nosologists to fix the proper character, and rather point out errors than correct them. The word scurvy has two objections; the one, that it is not expressive of the disease; and the other, that our ears are too often

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often annoyed with the application of scurvy to every trifling cutaneous affection;—a term expressive of deficient nourishment would be more proper.

Portsmouth, February 12, 1810.

*** We are very ready to find room for any articles by which we may contribute to the comfort of that valuable class of the community to whom we owe so much. Perhaps our Correspondent is mistaken in his opinion of putrid animal matter; but this is of less consequence, as such is rarely the food of sailors. The preservation of vegetable matter is much more important, and we have often wished for an opportunity of suggesting one simple improvement. Oatmeal is apt to become very soon sour in warm climates. As it is only, or principally, used for water-gruel, would it not be much better to use the whole grain or gritts as they are called? The French biscuit or rusks are also found to keep better than ours, and they have a mode of preserving the cabin store potted. Portable soups too, we conceive, might be given out by the captain or purser, to the men in health, at stated periods, and not merely reserved for sick store. During rain in warm weather, all the men might be taught to raise small sallad from raddish, mustard, or any other seeds, on wet flannel in plates.

CRITICAL ANALYSIS
OF THE
RECENT PUBLICATIONS
ON THE
DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

EDINBURGH JOURNAL. No. XXI.

(Concluded from our last, pp. 154—170.)

ARTICLE 5.—*Case of a Scirrhous Ovary, in which was found an Adipose Tumour, containing Teeth and Hairs, in a Patient who died in the fifth Month of Pregnancy.* By JAMES MILLMAN COLEY, Member of the Royal College of Surgeons in London, and Surgeon in Bridgnorth.

THIS is an addition to those melancholy cases, which it is at present enough that they are faithfully recorded. In some future period,

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riod, an accurate comparison of the whole may lead to rational conjectures, if not to a knowledge of the nature of such præternatural appearances.

ARTICLE 6.—*On the Effects of Arsenic.* By G. N. HILL, Surgeon.

(Concluded from the last.)

IN this paper, Mr. Hill gives an account of his success in lepra, syphilis, hemicrania, and tic doloreux, the phagedenic ulcer, schirrhous, and cancer. The first of these diseases is too inaccurately described to enable us to determine the success of the remedy. The second relates chiefly to those cases in which mercury has either lost its effect, or become deleterious. In many of these, a bare dereliction of that remedy proves a cure. In the phagedænic ulcer, and some of the diseases called cancerous, the remedy has been long in use, and some satisfactory cures of tic doloreux are also on record. It is no part of our wish, to undervalue Mr. Hill's labours, but there is always danger in the strong partiality to individual remedies, as we have lately had frequent occasion to remark of another mineral.

ARTICLE 7.—*Sequel to "An Apology for the Cutting-Gorget."* By W. SIMMONS, Surgeon at Manchester.

THE only remark we shall make on this paper, is the author's proposal that the staff should be held by an assistant, whilst the beak of the gorget is introduced along the groove by the operator. The advantage proposed by this plan is, that the operator may have the use of both hands. Under such a mode of operating, we conceive the assistant should not be less ready at the business than the operator himself. In our opinion, however, most surgeons would wish to manage the staff whilst they are passing the gorget through parts so highly important.

ARTICLE 10.—*On the Connection that subsists in certain Cases between Amenorrhœa and Phthisis Pulmonalis, as Cause and Effect.* By WILLIAM SHEARMAN, M. D.

THIS paper contains some very useful practical inquiries, concerning a subject which very often puzzles the physician, namely whether amenorrhœa is to be considered as a primary or secondary disease. In the case here described, we confess we remain very much in suspense, but cannot help offering a hint, which we doubt not will be well received by the author. When we are introduced to a young woman about 20, delicate, but healthy, till the last five months, with a quick pulse, and many symptoms of emaciation, there is always some uncertainty whether we are made acquainted with all the probable causes of her complaint. Even if the tender passion has no share in it, we shall frequently find that some source of anxiety has gradually enfeebled all the energies of life, and excited into action certain parts, which, though previously diseased, might, under more favourable circumstances, have continued without interrupting the actions of those organs in which they are seated. These causes are carefully concealed by the patient, and sometimes

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sometimes unknown to, or purposely overlooked by those about her. At length the disappearance of a discharge, to which the sex are, with much propriety, very attentive, gives the first alarm; but before this, considerable mischief has taken place, and the uterus is only one of various organs whose functions are interrupted.

After this preface, we shall proceed to give the case in the author's own words.

"A young woman, aged 20 years, of a very delicate habit, but in pretty good health, had experienced about five months ago an obstruction of the menses in consequence of cold; from this time her health gradually declined, she became languid and weak, had frequent pains in her side, and occasionally a short dry cough. Her appetite was impaired, and she became rather emaciated. In the month of July I first saw her; at this time she complained of pain in the left side, occasional fits of coughing, which recurred at uncertain intervals, but generally with considerable violence night and morning. She had scarcely any expectoration, little thirst, pulse 120, appetite impaired, bowels regular, countenance and lips very pale; there had been no return of the menses since their first suppression. A blister was immediately applied to the pained part, and directed to be kept open; five grains of rubigo ferri, combined with myrrh and castor, to be given three times a-day, with infusion of chamomile flowers, and the feet to be immersed in warm water every night. The pain was removed by the blister, and it was healed up. The medicines were continued about six weeks; during this time the pain occasionally recurred, which was always soon removed by a blister. The cough was sometimes considerably better, sometimes aggravated, with trifling expectoration; her pulse was diminished to 90; her appetite improved, and her countenance looked better. I now discontinued my attendance, and have since learned, that the only remedies she afterwards used were, expectorants and blisters, occasionally, when there was cough or pain, and she *entirely omitted* all other medicines. She continued without much alteration, excepting that she gradually grew weaker, and within the last fortnight was almost confined to bed, without, however, the cough or expectoration being greater than before. On the Saturday morning previous to her death, she was seized with violent excruciating pain in the abdomen, particularly about the umbilicus, which continued, with more or less violence, for several hours; it then left her, and she seemed much in the same state as before, until the Thursday morning, October 13th, when, soon after having got out of and into bed, without assistance, she suddenly expired.

"On opening the thorax, there was found a very general adhesion of the pleura pulmonum to the pleura costalis, yet not so firmly but they might be easily separated by the fingers; there was a small quantity of fluid in the cavity, not exceeding three or four ounces; the lungs were very dense, and of a dark colour, resembling

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sembling the liver in appearance; portions of them, when put into water, fell to the bottom. Being cut into, some of the bronchial cells contained a purulent matter, but in small quantity, and here and there was a small excavation the size of a pea; a few small tubercles also were found, not inflamed. The external surface of all the small intestines was very red, and seemed to be studded with small red points, resembling the villous coat of the same intestines when injected. There was no appearance of gangrene, neither was there any adhesion between the different convolutions of them, nor between any of them and the peritonæum; the omentum also was extremely vascular, the mesenteric glands were enlarged and hardened in several places, the pancreas, spleen, and other viscera, were of their natural appearance.

"That the lungs were injured in a great degree, was evident from the tubercles found in them, and from the pus contained in the bronchial cells, but still the ulceration had not arisen to such a height as to be the immediate cause of death. More extensive affections than the present one are perhaps frequently recovered from, and tubercles may remain for many years with impunity, if no exciting cause of inflammation arise. Although, likewise, there were marks of inflammation upon the intestines, yet this inflammation did not immediately destroy the patient; for the pain had left her some days previous to her death, indicating a cessation of the inflammation, which, as it was not followed by gangrene, cannot be considered as the cause of death. The enlarged state of the mesenteric glands affords a presumption, that the flow of chyle into the blood-vessels might have been interrupted, but certainly there was not sufficient appearance of emaciation in the dead body, to enable us to attribute her death to this circumstance. We must look for the cause of death, not in the affection or destruction of any one particular organ, but in that state of general debility, consequent upon the interruption of a very important function in the female economy, during which state of debility, parts of the body peculiarly predisposed are very apt to take on disease. In the present patient, there appeared to exist a scrofulous diathesis, wherein the lungs and mesenteric glands are always readily susceptible of disease, from the slightest causes, and always the more readily the greater the state of weakness in the system, however induced. Every kind of weakness is accompanied with irregularity in the action of the living power; hence spasmodic contractions of various parts. This disposition to preternatural contraction is particularly observable to take place in the blood-vessels, in all cases of amenorrhœa, forming the principal symptom in what has been called chlorosis, differing from hectic fever, chiefly, in depending upon a morbid action of the vessels themselves, independent of the absorption of extraneous acrimony. This state of the vessels is perhaps at first produced by plethora, arising from a retention of a quantity of blood, which excites the larger arteries to stronger action, while yet the resistance in the extreme vessels in the uterus is not overcome

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come by its increased action, long continued, exhausts the living power, and produces weakness. During this state of general weakness, and morbid action of the blood-vessels, partial inflammations are very apt to arise. No wonder, then, that the lungs, when, from constitutional predisposition, they are so susceptible of disease, should be one of the first parts to take on inflammation. If by suitable remedies the lungs are relieved, (the disposition to general inflammation still continuing from its original cause, the suppression not being removed) some other part is very readily affected; hence in the present case arose the inflamed state of the intestines, during which, all the thoracic symptoms disappeared. That this irregularity of action in the vessels, sometimes exciting symptoms of inflammation in one part, sometimes in another, entirely depends upon the suppression of the menses, is evident, from its generally ceasing upon the return of that evacuation, and from the perfect restoration of health immediately following it. No occurrence is more common than the attack of cough, pain in the side, and difficulty of breathing in females, soon *after* the obstruction of the menses, and upon their recurrence all these symptoms going off."

"Dr. Beddoes, it is urged, observes, 'In some instances, when the fox-glove has removed the hectic fever, and greatly reduced the *expectoration and cough*, the decline shall become almost imperceptible,' the patient *frequently appearing chlorotic*, but being really phthisical, as the *event* most commonly, and *sometimes* dissection, has evinced.' This serves to confirm the opinion, that the pulmonary symptoms are not in these cases the original idiopathic disease. If it be objected, that this doctrine can only be applicable to incipient phthisis in *females*, I would appeal to the experience of practitioners to determine, whether, in the female sex generally, the approach of phthisis is not more insidious, and its progress more slow than in men, where we usually find the attack more marked, and immediately consequent upon some obvious occasional cause, the symptoms sooner becoming more violent, and its whole progress more rapid. That this difference in the appearance of the disease arises chiefly from its frequently being rather symptomatic than idiopathic in females, will be apparent, if we find, that when phthisis arises in them from some obvious occasional cause, and where there has *never occurred suppression of the menses*, its attack and progress are more marked and rapid, than in the male. That it is so, I think experience will justify me in asserting; and impressed with this opinion, I cannot but recommend that we should keep in view the probable dependence of the pulmonary symptoms upon the interrupted functions of the uterus, and direct our treatment accordingly, at least, until we are convinced upon trial, that the opinion itself is fallacious, and the proposed treatment inefficacious or prejudicial."

Many ingenious observations are added by Dr. Shearman, on the remedies found successful in such complaints, particularly the ce-

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lebrated recipe of Dr. Griffiths, and the success with which it is sometimes attended in cases which threaten pulmonary consumption. On the whole, the paper abounds with useful practical remarks.

ARTICLE 11.—*Case of a singular Disease of the Heart.* By HENRY WISHART, Member of the Royal College of Surgeons, and one of the Surgeons of the Public Dispensary, at Edinburgh.

ANOTHER melancholy case, apparently arising from inflammation at the source of the circulation. We trust the frequent occurrence of such cases, will gradually convince every practitioner how improperly the lancet has been omitted, or how absurdly it has been dreaded in many cases of intense pain in those regions which contain viscera, the interrupted functions of which, must produce a calamitous life, if not an early death. We shall not be suspected of arraigning the practice of any individual. The commencement of the above case was much before the relator was consulted. His candour and accuracy does him equal credit. But we wish to take every opportunity of impressing on that class of our readers, who, for the most part, see diseases in their earliest stage, the importance of arresting them in the beginning, watching the progress of the patient's convalescence, and even for some years after attending carefully to every symptom, especially at periods of the year which have previously proved alarming.

Surgical Observations on the constitutional Origin and Treatment of Local Diseases; and on Aneurisms. By JOHN ABERNETHY, F. R. S. Honorary Member of the Royal Medical Society of Edinburgh, and of the Medical Societies of Paris, Philadelphia, &c. Assistant Surgeon to St. Bartholomew's Hospital, and Teacher of Anatomy and Surgery.

BY a Preface we are informed, that this work is to be considered a republication of the Author's former writings, leaving out the physiological parts. "With regard to the cases," says Mr. Abernethy, "which I consider as the valuable part of the book, I may observe, that it is not to be expected that the records of them will make so strong an impression on the minds of the readers, as the observance of them has done on that of the writer; but when the same occurrences are met with in practice, then will the impression become more vivid, and knowledge arise, as it usually does, from personal experience. If the facts contained in these volumes occurred so rarely, that others could not be expected to meet with them, their relation would be of little value. They may, however, not improperly be compared to certain species of plants, by no means uncommon, which are liable to be confounded with others by an inattentive observer; but when their discriminating characters are once pointed out, they may be so readily distinguished, collected, and examined, as to render a more minute description of them unnecessary. If diseases could, like other objects

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jects which we mean to delineate, be placed in various points of view, and illuminated at pleasure, so as to show distinctly their different parts, one accurate representation would suffice; but we see them obscurely, and as knowledge increases, it serves, like light shining from different places, to illuminate the various parts of the objects of our examination.

"For, as I have expressed it in the first edition of these writings, 'in proportion as we advance in knowledge, we are led to remark many circumstances in the progress of a disorder which had before passed without notice; but which, if known and duly attended to, would clearly point out the nature of the complaint. Hence the records of former cases are of much less value; as the symptoms about which we are now anxious to inquire, have in them been entirely overlooked.' It therefore becomes necessary, that each writer should state those circumstances to which he has been particularly attentive; nor need he further delineate the case than by a general outline, so as to render it intelligible.

"The relation of cases may be compared to the representations which an artist gives of natural objects, and which are valuable only inasmuch as they are correct or vivid delineations of reality. Such portraits, sketched by a person of dull perception, or by one whose optics are perverted by prejudice and theory, are either valueless or deceptive; and hence, perhaps, has arisen that objection to books of cases which I find to be very prevalent. In the imperfect sketches which I have laid before the public, my chief object has been to touch up, and bring into view, some parts of the subjects which have not been so clearly seen or strongly delineated by former draftsmen."

This passage shows very clearly the importance of marking with minuteness every symptom of disease, and the advantage which an experienced practitioner will derive from his previous knowledge in detecting many particulars which may be overlooked by others. But the allusion to artists very much reminds us of one failing, of which, according to their technical language, many of them are accused, viz. of being *mannerists*. Genius and correctness are, unfortunately, too seldom united. The rapidity with which the minds of some men embrace objects of the most complicated nature, is highly flattering to themselves, and not less agreeable to such learners as conceive the whole of any science may be comprized in a nut-shell. Hence the fermentation of Sydenham, the spasm of Cullen, the sthenics and asthenics of Brown have been popular, because they seemed to be comprehended without trouble, and to be, with certain modifications, applicable to most diseases. These theories are, perhaps, most dangerous to those who receive them at second hand. Sydenham described his cases with accuracy, and varied his practice according to symptoms, though he contrived some way to reconcile all this variety with his favorite theory. But his followers were so tenacious of his doctrine, that in their eagerness to conform to it, their practice for some their master's death was directly opposed to his.

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We cannot help apprehending something of the same kind in our own days. That men of experience may entertain their favourite notions, and even model those notions to the facts before them, we can easily conceive; and if their practice varies conformably, no injury will be suffered. But if doctrines, apparently simple, and applicable to all cases, are strongly impressed on young men, will there not be too much reason to fear lest the result should be an uniformity in practice, scarcely consistent with the variety of forms in which diseases present themselves in different subjects and at different seasons? We wish these suggestions to be considered in a very general view, and shall now proceed to our Remarks on the Work, which is introduced in the following manner.

"An evil, (says our Author) seems to me to have arisen from the artificial division of the healing art into the medical and surgical departments. This division has caused the attention of the physician and the surgeon to be too exclusively directed to those diseases, which custom has arbitrarily allotted to their care. The effects of local disorders upon the constitution have in consequence been too little attended to; and indeed I know of no book, to which I can refer a surgical student for a satisfactory account of those febrile and nervous affections which local disease produces, except that of Mr. Hunter. The reciprocal operation of constitutional disorders upon local diseases has obtained still less attention. To investigate more particularly some parts of these subjects, and to submit them to public notice, are the proposed objects of the present paper.

"No part of the animal body can in general be very considerably disordered, without occasioning a correspondent derangement in other parts of the system. Such disorder has been considered by Mr. Hunter as the result of universal sympathy. This consent of the whole constitution with its parts, manifests itself, in particular instances, by a greater disturbance of the functions of some organs than of those of others; and from this circumstance diseases have derived the appellations by which they are commonly distinguished. If the actions of the sanguiferous system be principally disturbed, and the temperature of the body subject to unusual variations, the disease is termed fever: if the nervous system be chiefly affected, a state of vigilance or of delirium may be produced; convulsions and tetanus take place when the functions of the muscular system are more particularly deranged. Though the disorder of particular organs thus give a character and denomination to the disease, it is sufficiently evident, in the instances adduced, that the whole constitution is disturbed; while certain parts are chiefly affected, perhaps from unknown circumstances relative to the nervous system, or from a predisposition to disorder existing in the affected parts. It seems to be ascertained, that persons of particular constitutions are predisposed to those febrile actions of the sanguiferous system, which constitute the inflammatory fever;

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ver; that there is a propensity to convulsions in children; and to tetanus in the inhabitants of warm climates.

"It may be a fit subject for inquiry, whether it be possible for particular organs to become affected otherwise than through the nervous system in general. Though some instances of sympathy are strange, and perhaps inexplicable, there are strong reasons for believing that the inflammatory fever, the state of vigilance and delirium, convulsions and tetanus, which arise in consequence of injuries of the limbs, are produced by irritation imparted to the brain, which, by a kind of reflected operation, occasions a greater disorder of some of the organs of the body than of others, and thus gives a character and denomination to the disease.

"That the stomach and bowels are disordered by injuries and diseases of parts of the body, has been remarked by various persons; but the subject has never been extensively surveyed, nor viewed with that accuracy of observation, which its high importance merits. It has been observed, that sprains of tendinous or ligamentous parts produce sudden sickness; and Mr. Hunter has attributed that shivering which is consequent to accidents, and attendant on some diseases, to the state of the stomach. It is known that, in some local injuries from accident or operations, the stomach has appeared to be the part principally affected. But remarks on the affections thus induced in the digestive organs have been made only in a cursory manner; and it is my intention to examine the subject more particularly. It also appears to me, that the connection of local diseases with the state of the constitution in general, is either not sufficiently understood, or not duly regarded, by the generality of practitioners; and I also mean to claim their particular attention to this subject. I shall in the first place select a case, to shew how the stomach and bowels, or, to speak yet more extensively, the digestive organs may be affected from local disorder."

It is impossible not to regret the vast scope of reflection that is forced on the reader in this short passage, without time to look about him, or any clue to direct him. Mr. Hunter is first introduced by referring the student to the largest, most profound, and in some respects, most complicated of all his works, and without the slightest direction to any passage; yet this is the only book in which will be found a "satisfactory account of those febrile and nervous affections which local disease produces." We are afterwards indeed informed, that Mr. Hunter considers such disorders as "the result of universal sympathy;" and in a Note we are further told, that it is the remote sympathy of the "patient and industrious" Mr. Hunter of which Mr. Abernethy speaks. By all this, we suppose it must be the intention of the Author to distinguish between that sympathy which shows itself by the affection of only one organ, from that which affects the whole constitution. Mr. Hunter has indeed explained himself with sufficient accuracy in this distinction. With him, the sympathy of the whole consti-

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tution is well enough known by the terms symptomatic and hectic fever, and the remote partial is not less understood by the affection of the head with the stomach, the stomach with the uterus, tendons, and many other parts. All this, though intelligible in Mr. Hunter, it must be confessed, is related with more brevity than its importance, as a fundamental doctrine, seems to admit. Whether it is more perspicuous in Mr. Abernethy, our Readers must determine.

A case follows, in which the operation for the omental hernia was followed by symptomatic fever of three days. In the beginning, the stomach rejected every thing that was swallowed. After copious bleeding the sickness abated; but the tongue was furred, the skin hot, and the pulse quick, with great watchfulness. The patient took small doses of Epsom salts, and other purgatives, which remained on his stomach, but produced no effect. On the fourth morning, he "felt his bowels, to use his own expression, apparently filling; and a profuse discharge ensued. A dozen copious, fetid, and black evacuations took place between five and ten o'clock, and he had several others in the course of the day; after which his appetite returned, his tongue became clean, and a sound and continued sleep succeeded."

Mr. Abernethy remarks, that on this occasion the chylopoietic organs were the parts chiefly affected. We are by no means disposed to question this, for there cannot be a doubt that in all fevers, from whatever cause, all the functions are disordered; and the great importance of those abovementioned, render them the earliest object of attention. In such a state as this, it is not to be wondered if the intestines were insensible to very powerful stimuli, nor that their sensibility returned as the system at large recovered from its symptomatic irritation.

"It is probable also, (says Mr. A.) that the restlessness and anxiety of the patient were aggravated, if not principally caused, by the state of the chylopoietic viscera; since the relief which took place in those parts on the renewal of secretions into them, certainly removed the nervous and febrile symptoms. That the discharges were the effect of secretion is proved by the absence of alimentary matter in the bowels, in consequence of the action of the purgative administered on the morning of the operation, and the abstinence both before and after that period."

For our own parts, we should be disposed to consider the disorder in the chylopoietic organs as part of that general irritation which induced disorder in every other part; and we should, for the same reason, consider the improved condition of those organs, and their sensibility to stimuli, as the consequence of the cessation of that general irritation, that symptomatic fever, that universal sympathy, which was excited by the operation. It is scarcely less common for the brain to be affected under similar circumstances than the stomach and bowels; in short, universal sympathy is excited, and those parts suffer most which, according to the constitu-

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constitutional peculiarity of the patient, are most easily irritated. Whilst this irritation continues, every attempt at producing the customary effects of medicine will prove abortive. If symptoms of inflammation attend, bleeding is the only remedy; after which, quiet, and the administration of such simple liquids as are found most agreeable to the patient, are all that can be attempted till the irritation subsides.

"I could relate (says Mr. Abernethy) numerous cases in support of the inferences which I have drawn from the preceding history, that local irritation acting on the nervous system may affect the digestive organs in a very serious manner, and thereby create great general disorder of the system, which is afterwards alleviated in proportion to the amendment that ensues in the state of those viscera. Such consequences of great local irritation must frequently occur to every one; it is therefore unnecessary to adduce more instances to support the opinions here delivered.

"With respect to the treatment of cases of this description it may be right to add, that the primary object should be to produce secretion from the irritable organs. In the case which has been related, and in many others recorded in this volume, the effect of secretions occurring from the disordered organs in relieving their irritable state is very manifest. In many instances opium will not prevent continual efforts to vomit, yet when by magnes. vitriolat. or purgatives administered in the form of pills and clysters, stools are procured, the vomiting ceases, the stomach retains both food and medicine, and general tranquillity of constitution is as suddenly restored."

We should rather say, that when these organs recover with the rest from the universal sympathy, their secretions will follow the customary stimuli. In the above case, Mr. A's primary object was copious bleeding, before which the stomach rejected every thing.

A Chapter, or a proposition follows, entitled, "A slighter degree of continued local irritation will produce a less violent disorder of the digestive organs." In this we meet with nothing to which we can object, excepting that some well known practical facts are delivered in a language which would lead us to suppose that the author was telling us something new. We extract the following paragraphs, to show the author's mode of describing hectic fever from large abscesses; the mode in which a common ulcer partakes of the fluctuations of health in an irritable subject; and the various sympathies attending dentition.

"If then, (says Mr. A.) vehement local irritation can produce a violent disturbance of the chylopoietic organs, it may be expected that a less degree of a similar cause will produce slighter effects of the same nature. Indeed, the foregoing case was related not merely because it seemed worthy of record by itself, but chiefly to prepare the reader for the observations which are to follow.

"This slighter degree of derangement occurs in the advanced stages of lumbar abscess, diseased joints, compound fractures, and

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all kinds of local disease, which impart considerable and continued irritation to the whole constitution. We also find a less important disease, as, for instance, a fretful ulcer, keep up a disorder of the system in general, and of the digestive organs in particular, which subsides as the irritable state of the ulcer diminishes. But as practitioners in general may not, perhaps, have so attentively remarked these circumstances, as to be familiarly acquainted with them, it may be useful to mention a very common occurrence, which cannot have escaped observation. I allude to the effects of the irritation of teething upon the health of children. The brain is sometimes so affected as to cause convulsions; the digestive organs are almost constantly disordered. The appetite fails; the tongue is furred; the secretions of the liver are either suspended, diminished, or vitiated. The bowels are either purged or costive, and the fæces fetid. The fæcal matter is often mixed with mucous and other secretions. There is also frequently a very troublesome cough. Such symptoms generally subside when the local irritation ceases, but sometimes the disorder of the digestive organs, thus excited, continues and disturbs the general health of the patient."

The subject of the digestive organs, of the biliary secretions, and of the alvine discharges, is continued for several pages; but whatever axioms or inferences the author may wish to draw, we confess reluctantly, that we have not been able satisfactorily to inform ourselves. There are many common remarks mixed with others which are more new; but the loose manner in which the whole is tacked together, deprives the reader of many advantages, which the experience of Mr. Abernethy must otherwise have afforded. In the midst of many conjectures on the use of the bile, we have the following passage in the form of a Note.

"In the inquiry into the probable uses of the bile, it ought to be observed, that in many persons, in whom that secretion is either for a considerable time wholly suppressed, very deficient, or much depraved, it does not appear that the nutrition of the body is defective."

In a work intended to instruct the younger practitioners, it would have been desirable, that this note should have been taken into the text and more extended. By the last limb of the sentence, is it intended we should understand, that the body being nourished as before, no inconvenience occurs to digestion from the loss of bile? or is it only meant to show, that the quantity of fat may be the same, though digestion is injured from a deficiency of bile? It is certain, that in children who live much on milk and farinacea, the stools are frequently colourless without any apparent want of health, or even of cheerfulness. On this account, we should have thought less of the remarks contained in the note, had not our author insisted, afterwards, so much on the colour of the fæces, as indicative of the state of health.

Another section devoted to this part of the subject, describes the defect of these organs as manifested by a dry tongue, furred particularly

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larly at the back part, pain in the epigastric region, turbid urine, &c.; in which we have still to regret the want of connection or arrangement, whilst we cannot but be pleased with many of the remarks.

We are next presented with some paragraphs, superscribed, "Occasional effects of disorder of the digestive organs."

This relates principally to the treatment; the plan of which may be easily conceived, as we have hitherto heard of little but diseases of the digestive organs. Mild aperients with stomachic bitters, and occasionally mercury in small doses.

"When the state of the health required it, says Mr. A. or the disease did not yield to the treatment which I have described, I have referred the case to the physician; under whose direction benefit has been obtained by medicines of more activity than those which I had ventured to recommend, conjoined with tonics, and those medicines which are usually termed nervous.

"In investigating the treatment of these disorders, it is necessary to ascertain, not only what medicine is beneficial, but also what change it produces in the circumstances of the disorder. The administration of a medicine may in one case be succeeded by a discharge of bile, and a striking relief from long continued and distressful feelings: yet the same medicine may be given in many other instances without the same consequence. Was the change, then, in this instance, accidental? Or must it be attributed to some unnoticed peculiarity in the disease or constitution?

"I have generally explained to the patients, the objects which I had in view, in correcting disorders of the digestive organs, by saying that there are three things which I consider as right and necessary to the cure of disorder. First, that the stomach should thoroughly digest all the food that is put into it. The patient perceiving the necessity of obtaining this end, becomes attentive to his diet, and observes the effect which the quantity and quality of his food and medicines have upon his feelings, and the apparent powers of his stomach. Secondly, that the residue of the food should be daily discharged from the bowels: here too, the patient apprized of the design, notes what kind and dose of purgative medicine best effect the intention; and whether it answers better if taken at once, or at intervals. Thirdly, that the secretion of bile should be right, both with respect to quantity and quality. In cases wherein the secretion of bile has been for a long time deficient or faulty, I recommend, as I have said, unirritating and undebilitating doses of mercury to be taken every second or third night, till the stools become of a rhubarb colour. This mode of exhibiting the medicine has at least the advantage of being innocent, and if months elapse before the object is accomplished, we cannot wonder at the tardiness of the cure, when we consider the probable duration of the disorder, prior to our attempts to correct it. The patient is relieved in proportion as the end is accomplished, which feelingly induces him to persevere in such innocent measures. By thus engaging the co-operation of the patient, the practitioner

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tioner will, in my opinion, derive considerable advantage in the treatment of the case."

By this passage, we learn that Mr. Abernethy consigns his more stubborn cases to the physician. Some lighter cases it appears are relieved almost instantly; on these he expresses a doubt, whether he is to impute the change to "accident, or some unnoticed peculiarity in the disease or constitution." We are concerned to see such a waste of language under all the formality of observation! What is accident, we would ask?—Does true philosophy admit any such thing as accident? And if pathology indulges herself in such an expression, does she mean any thing but "some unnoticed peculiarity in the disease or constitution." Why then this distinction without a difference: And if, as we are told on other occasions, months elapse before the object is accomplished under this innocent mode of treatment; do we not know how generally such ailments relieve themselves, and how ready that class of patients, who love to "co-operate" with their medical adviser, are to fancy themselves better, under a plan which they suggest or approve.

The work now takes the form of Sections, containing "cases illustrative of the author's doctrine. The first is on nervous and muscular disorders." These are chiefly paralytic diseases, resembling such as arise from a distorted spine or carious spinal processes. In some of these the author found great advantage from such remedies as restored the digestive organs, or such a plan of life as proved the means of generally invigorating the patient. These Cases may be read with great advantage by the younger practitioner. The habit of applying issues or blisters indiscriminately in all such cases, we have often seen reason to regret, and excepting where the disease seems connected with chronic inflammation, we never saw much benefit derived from them. We would however, remark, that as Mr. Abernethy finds his plan succeed sometimes suddenly, sometimes after months, so Mr. Pott found his caustics always succeed, sometimes early, sometimes after more than a twelvemonth.—Let these foibles, in distinguished characters, teach us all to be suspicious of the suggestions of our own fancy!—There is a short note which we cannot omit.

"I have seen several cases which induce me to believe that the weakness of the sphincter vesicæ, which occasions young persons to void their urine during sleep, very frequently arises from the same cause."

Thus a process which takes place only during sleep, arises from a weakness in the sphincter vesicæ in subjects who, whilst awake, can retain their urine without difficulty. We shall only hint at another very eminent surgeon, who seems rather disposed to cure all diseases, slow fevers among the rest, by setting the urinary organs to rights, just as Mr. Abernethy would cure a defect in the urinary organs by improving the digestion, and thus relieving his patient of a low fever.

"I think, says Mr. Abernethy, that local irritation may disorder

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order the digestive organs; which disorder continuing, and aggravating the affection of the sensorium, may possibly lead to the production of tetanus, at a time when the wound is no longer irritable. In four cases of tetanus, in which I had an opportunity of inquiring into the state of the bowels, the evacuations from them were not like fæces. I wish to propose, in investigating the cause of tetanus, as a question, What is the state of the bowels between the infliction of the injury and the occurrence of that dreadful malady?*

On this passage we shall only remark, that the reader cannot be directed wrong in his practice. The *local* disease he will of course attend to, nor do we suppose he will be inattentive to any error in the digestive organs. The question proposed at the close of the paragraph is we apprehend intended for other climates, where lock-jaw is more common. In this country it is so little expected, and when it occurs, is so generally after the appearance of a wound is mending, that we shall scarcely persuade every patient to watch the colour of his fæces during the whole period. In warmer climates the event is more common and more rapid. If in these an alteration should be found in the appearance of the fæces, will it not be rather suspected, that the digestive functions have suffered in common with the other parts of the system, than that they have been the immediate cause of lock-jaw?

In the next Section, the same inquiries and suggestions are continued "on the effect of disorders of digestive organs attending injuries of the head." The 3d section is on "undefined and undenominated diseases arising from disorder of the constitution;" the 4th, "on more defined diseases, as carbuncle and scrofula, arising from disorders of the constitution;" the 5th, "on diseases of various glands, arising from disorders of the constitution;" the 6th, "on disorders of parts which have a continuity of surface with the alimentary canal." As all these are directed to the same object, our readers will not expect us to be very particular in detailing the various cases by which they are illustrated. It is enough to say, that

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* "Such cases as I have related, with others that it would be foreign to my present purpose to mention, have impressed the opinion on my mind, that disorders of the digestive organs may originally cause, or may secondarily aggravate a nervous disorder; and produce, as has been mentioned, in the nervous system, 'a diminution of the functions of the brain, or a state of excitation causing delirium, partial nervous inactivity, and insensibility; or the opposite state of irritation and pain; in the muscular system, weakness, tremors, and palsy; or the contrary affections of spasms and convulsions.' Could these circumstances be proved, it would be scarcely necessary to add, that those painful affections of parts, to which perhaps some predisposition exists, may be excited in a similar manner; such as gout and rheumatism. Indeed, rheumatic pains are very usually concomitant upon that state of constitution, which existed in the patients whose cases I am relating."

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there are few disorders, or few parts disordered, that Mr. A. has not relieved by small doses of mercury, stomachic remedies, and gentle purgatives. Nor do we see any necessity for this division of the *seat* of a disease any more than of the disease itself.

The last mentioned Section, on disorders of parts which have a continuity of surface with the alimentary canal, begins with diseases of the œsophagus, the Eustachian tube, or trumpet, as it is here called, and the nose; after which we have accounts of diseases in the eye, and on the common skin. It may be urged, that as the skin covers all these parts, the continuity of surface is known to exist. But is not such equally the case with every other part of the body? Why therefore any distinction on the score of continuity? In this respect we are ready to make large allowances for Mr. Abernethy's various engagements, and for that inattention to trifles which is sometimes thought characteristic of genius. But we cannot so easily excuse his printer. The following is the order of the Sections as they stand in the book. S. I. II. III. V. IV. V. V. This has sometimes increased the difficulty of making a clear analysis of the work, and will, we trust, be admitted among our excuses.

The last Section is the most interesting, as it contains what information the author has "obtained by dissection, relative to the *causation* of other diseases by those of the digestive organs." This abounds with many useful passages, some of which we would willingly extract, had we not already exceeded our limit, and did not a new subject still remain for our notice.

This division of the work begins like the former, with honourable mention of Mr. Hunter. It is however shown, that the great improvement made by that gentleman in the operation for the aneurism, appears, if not imperfect, at least to require the management of an artist equal to the inventor. The recurrence of hæmorrhage after the single ligature of the artery, is accounted for by Mr. Abernethy, in a satisfactory manner, as far as his mode of conducting the operation extends. His remarks on the plans proposed and adopted for improving the operation are still more satisfactory, and we are ready to admit the propriety of dividing the artery between the two proposed ligatures. But there is another name introduced in a Note, to which we conceive too little attention is paid. To explain ourselves the better, we shall extract the note and the passage connected with it.

"As large arteries, says Mr. Abernethy, do not ulcerate when they are tied upon the surface of a stump after amputation, it occurred to me that it would be right to tie them, in case of aneurism, as nearly as possible in the same manner and under the same circumstances. The large vessels on the surface of the stump continue to possess all their natural surrounding connexions, whilst they are left in a lax state, in consequence of their division.

"To accomplish this object in cases of aneurism, I propose that the operation should be performed in the following manner:—

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The operator should divide the immediate coverings of the artery, till he has fairly exposed its surface. When he can touch the bare vessel, he will not, I believe, find any difficulty in separating from it, by means of his finger and thumb, or the blunt edge of an aneurismal needle, the cellular substance that connects it to the contiguous parts. This part of the operation is not painful, and should be performed slowly. The firm sides of the vessel enables the surgeon clearly to distinguish its surface, and by keeping the finger in exact contact with it, a passage may be made completely round the artery. Care should be taken not to elevate the artery more than can be possibly avoided, because the artery would be stretched in its longitudinal direction by so doing; and care should also be taken not to injure the contiguous veins or nerves. When the operator has thus gently insinuated his finger between the vessel and its surrounding connexions, so that an inch of its surface is every where exposed, two ligatures may be put under it one of which is to be carried upwards, and the other downwards, as far as the artery is detached, and then tied as firmly as possible. The artery should then be divided by a probe-jointed bistoury in the interspace between the two ligatures, but nearer to the lower ligature than to the upper one.

"In my opinion, large arteries should always be tied with moderately thick ligatures, because we may then draw the noose as tightly as possible, without apprehension of cutting or tearing the coats of the vessel, or of breaking the ligature. The latter occurrence would in many cases prove a very embarrassing circumstance, and it might be very injurious on account of the jerk communicated to the artery to a considerable distance. Also, when an artery is tied with a thick ligature, the compression made by it is not so great as to produce a speedy mortification and separation of the end of the vessel, so that the ligature remains, in general, a fortnight before it is detached, and therefore, time is allowed for the consolidation of the sides of the vessel prior to its separation.

"Doctor Jones, whose numerous and accurate experiments have thrown much light upon the natural means by which hæmorrhages are suppressed, thinks that the ligatures should be round and firm; because such cords are most likely to cut the internal coats of the artery. I am solicitous that they should be strong and moderately large; because, as far as I have remarked, large ligatures remain longest on the arteries before they are detached; and in examining the stumps of patients who have died after amputation, I have frequently seen the sides of the artery unclosed, even though the ligatures have fallen off from them."

In this extract, we find Mr. Abernethy expressing a wish, that the arteries should preserve all their natural surrounding connections. The advantage of this was long ago suggested in our Journal. Dr. Jones's experiments have since shown, that the preservation of this surrounding connection is of less importance, than the figure and mode of applying the ligatures. Mr. Abernethey indeed

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deed says, that the ligatures should be moderately thick that we may have no apprehension among other events of "tearing the coats of the vessel." Yet "Dr. Jones, whose numerous and accurate experiments have thrown so much light on the subject, thinks they should be round and firm, because such are most likely to cut the internal coats of the artery." Now, we very much wish Dr. Jones had been more attended to in this disquisition. That equally indefatigable and ingenious gentleman found, that if the internal coats of the artery are divided, the consequence is a process of nature for the obliteration of the vessel, though it should remain undivided, and even retain its permeability. This most important discovery of Dr. Jones, we cannot but regret to see entirely overlooked. It is further to be remarked, that the same gentleman proved experimentally, that if an artery is divided obliquely and transversely less than one fourth of its diameter, then the injury may be restored; but if more than one fourth of the diameter was divided, it was found that ulceration took place, in order to make a complete division, the object of which appears to be, that the artery may have the advantage of retracting, and also that the process may be set up which is found to follow a complete division of the internal coats, namely, the adhesive inflammation, by which the cavity is obliterated. All these considerations from an author such as Dr. Jones is here described, are, we think, worthy of much more attention than is paid them. Is it not possible that the very mode of tying the arteries, by making an imperfect division of their internal coats, may have produced ulceration, when a complete division might have induced adhesion and obliteration of their cavities? In the only successful case, we are informed, that Mr. Abernethy passed two "*moderately thick* ligatures, tying them as *firmly* as he could." It is much to be wished, that mention had been made, whether the ligatures were round or flat.

In all other repects we are pleased with Mr. Abernethy's courage in undertaking, and judgment in conducting such important operations; but in future descriptions of dissections, after such events, we hope more attention will be paid to the result of those invaluable experiments, for which we are so much indebted to Dr. Jones.*

* For an account of Dr. Jones's labours, and our remarks on them, see our Journal, vols. xv. and xvi. And for the advantage of preserving the surrounding vessels by which an artery is supported, see our Journal, vol. vi. p. 546, note, and the passage in the text to which it refers.

Udiometrical,

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Udiometrical, Thermometrical, and Barometrical Statements, by Dr. T. Pole, of Bristol.

An Account of the Quantity of Rain fallen in each Month.

Numerical order of the month.	Months, as denominated in the Calendar.	1804 Inches 100 of an inch	1805 Inches 100 of an inch	1806 Inches 100 of an inch	1807 Inches 100 of an inch	1808 Inches 100 of an inch	1809 Inches 100 of an inch
1	January - -	4 43	2 44	5 97	2 28	1 5	4 12
2	February - -	2 48	2 30	2 14	2 15	0 59	3 26
3	March - -	1 80	0 98	1 67	0 34	0 35	1 27
4	April - - -	2 27	2 78	1 29	0 49	5 37	3 75
5	May - - -	2 75	1 43	1 50	5 82	2 99	1 45
6	June - - -	0 25	2 58	1 32	0 15	1 75	1 75
7	July - - -	3 78	2 60	3 87	4 21	2 76	1 7
8	August - -	2 26	2 22	4 27	2 55	3 6	4 38
9	September -	0 28	1 59	1 81	3 69	4 36	4 16
10	October - -	2 80	1 94	1 49	2 14	5 26	0 8
11	November -	5 44	1 32	3 36	5 44	3 8	1 54
12	December -	1 45	3 73	6 39	2 5	1 52	2 68
	Total	29 77	26 1	34 38	31 31	32 8	29 51

The average Temperature of each Month, from Observations made at 8 in the Morning.

Numerical order of the month.	Months, as denominated in the Calendar.	1804 Degrees 100ths of a deg.	1805 Degrees 100ths of a deg.	1806 Degrees 100ths of a deg.	1807 Degrees 100ths of a deg.	1808 Degrees 100ths of a deg.	1809 Degrees 100ths of a deg.
1	January - -	33 50	33 16	37 7	31 33	33 47	33 17
2	February - -	36 33	35 86	37 75	35 75	34 15	42 11
3	March - -	36 33	40 20	37 94	33 46	33 66	30 56
4	April - - -	37 99	42 87	43 80	42 33	43 10	39 77
5	May - - -	57 —	57 50	54 17	55 66	56 90	56 78
6	June - - -	62 —	57 50	61 80	59 45	59 90	58 85
7	July - - -	62 —	61 52	63 —	64 44	66 22	61 90
8	August - -	60 33	63 33	62 22	63 52	63 17	61 44
9	September -	56 32	58 —	54 52	48 27	45 80	56 76
10	October - -	49 99	43 —	48 66	51 40	44 3	46 17
11	November -	42 10	36 —	45 30	34 55	42 52	36 —
12	December -	33 50	37 —	44 44	31 55	33 10	37 94

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The average State of the Barometer for each Month.

Numerical order of the months.	Months, as denominated in the Calendar.	1804 Inches 100 of an inch	1805 Inches 100 of an inch	1806 Inches 100 of an inch	1807 Inches 100 of an inch	1808 Inches 100 of an inch	1809 Inches 100 of an inch
1	January - -	29 60	29 60	29 62	30 5	30 10	30 11
2	February - -	30 25	29 85	30 5	29 91	30 5	30 75
3	March - -	29 70	30 —	29 50	30 15	30 30	29 58
4	April - - -	29 80	29 90	29 90	30 30	30 15	30 30
5	May - - -	29 40	30 —	30 5	30 95	30 15	31 10
6	June - - -	30 35	30 5	30 20	30 7	30 25	31 30
7	July - - -	29 90	30 —	29 90	30 15	30 25	31 42
8	August - -	30 —	30 35	30 —	29 75	29 45	31 49
9	September -	30 65	30 5	30 10	29 90	29 50	31 40
10	October - -	29 75	29 95	29 90	30 10	29 45	31 4
11	November -	29 90	30 30	29 85	29 75	29 65	31 10
12	December -	29 85	29 80	30 20	30 15	29 60	29 13

The highest Temperature of the Atmosphere, indicated by the Thermometer, at any one Time during the Summers of the last Six Years.

Numerical order of the month.	Months, as denominated in the Calendar.	Days of the month.	Degrees of temperature.	Years.
6	June - - -	25	86	1804
7	July - - -	17	86	
9	September -	18	77	1805
6	June - - -	10	84	1806
7	July - - -	22	85	1807
7	July - - -	12	91	1808
7	July - - -	27	78	1809

The

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The lowest Temperature of the Atmosphere, indicated by the Thermometer, on the two coldest Days in the last Six Years, according to Observations made at Eight o'Clock in the Morning.

Numerical order of the months.	Months, as denominated in the Calendar.	Days of the month.	Degrees of temperature.	Years.
3	March	23	20	1804
12	December	24&30	21	
2	February	2	23	1805
11	November	21	18	
1	January	30	20	1806
10	October	24	29	
1	January	15	18	1807
12	December	23	16	
1	January	22	12	1808
12	December	21	19	
1	January	23	10	1809
11	November	20	16	

Report of the Diseases of Edinburgh for January, 1810.

By JOHN ROBERTON, M. D.

For several days after the commencement of this month the weather was uncommonly pleasant. Indeed, it was so extremly mild that vegetation had, in a few days, made considerable progress. About the end of the first third of the month, however, the weather assumed a very different aspect. It became cold and disagreeable for two days; great quantities of snow had fallen on the neighbouring mountains, and a similar fall, about the middle of the month, took place in Edinburgh. In the space of a few hours, the snow fell fifteen inches thick, which is a much greater fall than we have had in this city for several years. For two or three days, almost immediately after, the weather became soft, and much of the snow was gradually dissolved; but, about the beginning of the last third of the month, the frost became very intense. For a day or two about this time, a circumstance took place which seldom occurs in this part of the world. A very

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thick fog prevailed all over the city, almost similar to the very dense ones which sometimes occur in London. Our fogs are almost always during soft weather, but in the present instance, the thermometer stood several degrees below the freezing point. The weather succeeding this, gradually became soft, and the snow was almost entirely dissolved in a few days. This was succeeded by a day or two of mild weather, and especially toward evening and in the mornings, fogs of considerable density overspread the city and vicinity. The remaining days of the month were extremely mild.

The barometer underwent but little variation during the whole month: it was rather high about the beginning of it, and was much in the same situation at its termination.

The thermometer, about the beginning of the month, was high, but, during the succeeding frost, it was often several degrees below the freezing point. During the thaw that succeeded, it again rose, and continued between 36 and 40 till the termination of the month.

The diseases which, during this period, have caused the greatest mortality, were fevers, small-pox, pneumonia, and enteritis. The last of these, however, did not so often prove mortal, during its active state, as afterward happened from dropsical effusions in consequence of the previous inflammation. There were, besides these now enumerated, a very great variety of complaints of a more trifling nature, which were not dangerous, but only proved troublesome during their existence. Such as catarrh, cynanche tonsillaris, rheumatism, and slight, but general eruptions on the skin.

The fevers, which, as usual, are of the typhoid kind, have, since last month, been greatly aggravated in their malignity; they have consequently proved mortal in various confined and dirty parts of the City.

The small-pox continue much the same as last month, and a great many of the people here not only now disbelieve the efficacy of cow-pox inoculation, but roundly assert that those who are subjected to it, are afterward affected with many other diseases, which, under other treatment, they would have escaped. To encounter the stubborn prejudices of an ignorant mob, is too hard a task for one person; I must therefore only lament, with all friends to important improvements, that such an evidently beneficial discovery should admit of doubt, or have its utility misrepresented.

The inflammatory diseases still continue milder than in former

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former seasons. Some severe cases, however, of pneumonia, are occasionally to be met with in practice. Enteritis too, of considerable severity, sometimes occurs. Various instances of this disease terminating in dropsy, have, especially in patients advanced in life, been met with.

The cases of catarrh, cynanche tonsillaris, and rheumatism, have been very numerous. The first of these has yielded to the repeated administration of purgative medicines, the second to them, with the frequent use of gargles, and rheumatism to sudorific medicines, and when the acuteness of the symptoms have abated, to the application of friction. In all of these last mentioned complaints, preserving the body in an equal and dry temperature was indispensibly necessary.

The eruptions in the skin, though only troublesome during their existence, have been very general. In almost every case, a solution of muriate of mercury in spirit of wine has removed them in a few days.

INTELLIGENCE.

Medical Society of Paris.

This learned body held its first meeting for the present Session, (1809-10) on the 31st of October last.

After a short preliminary discourse by the president, M. Sedillot, the Secretary, in recapitulating the proceedings of the Society during the last year, gave a copious account of the perforation of the tympanum, as having been practised with success in several cases of deafness.

M. Nacquart read a paper under the title of "Topographical and Medical Observations on the Seventh Municipal Division of Paris." The public utility likely to be derived from a similar work on the forty-seven other municipal sections of Paris, formed the chief theme of this discourse, and M. Nacquart, in laying his own Memoir before the Society, expresses his hope that his example will be followed by the rest of the medical officers of Paris, as well as of other great cities.

The Society afterwards proceeded to award the prizes of the year.

M. François Hebreart, M. D. Surgeon *en second* to the Bicetre, obtained a gold medal of the value of 300 francs for the best Memoir on the following subject, as given out the preceding year: "Describe the character, causes, and treatment of gangrene, considered particularly with regard to the soft parts."

Silver

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Silver medals for various valuable communications were respectively voted to M. Thiebault, Physician at Bruxeres; M. Boucher, Surgeon at La Fleche; M. Chapp, Officer of the Legion of Honour, and Surgeon Major to the Imperial Guards; M. Labonnardiere, Physician at Cremieu; and to M. Bertrand of Pont-du Chateau.

The following subject was then announced as a prize question to be decided in October, 1810.

"Describe the disease designated by the ancients, and particularly by the English medical writers, under the name of Angina Pectoris.

"Point out the causes which produce it, and the authors who speak of it in a particular manner; describe the diseases which resemble it most, the affections with which it is complicated, and those which it produces in its turn."

The prize is a gold medal, of the value of 300 Francs. Another gold medal, of the value of 500 Francs, to be awarded in October 1811, has also been offered by the Society for the best paper on the following subject.

"A clear and precise idea is to be given of the nature of contagion. Point out the differences considered with regard to the nature of its principles, and the various modes of its communication. Designate from among the diseases generally considered as contagious, such as are really of that description. Lastly, Point out the mode in which the contagion is communicated in each of them."

An anonymous friend to humanity has presented 300 francs to the Society to be also adjudged at its first meeting in October 1811, to the author of the most satisfactory essay on the following subjects.

"1. Enquire, from direct observations, into the nature and effects of Plica Polonica; point out the epiphenomena as well as any concomitant diseases which are foreign to it; describe the true causes of this affection of the hairy parts of men and animals since its origin, and in the different countries where it has been observed.

"2. Determine the circumstances under which these causes exert their influence; ascertain why the plica has at all times spared or afflicted certain classes, and why, on some occasions, it has been observed to prevail and to disappear alternately.

"3. Appreciate the value of the therapeutic and hygiene means hitherto proposed to combat or prevent this species of endemic; and point out the best method of extirpating it."

The memoirs on any of the above subjects, writen in Latin or in French, may be addressed to M. Sedillot, the Secretary, at No. 6, Rue de Favart. They must reach Paris at least two months previous to the October meeting of the Society, and are to be accompanied with a sealed letter, containing the name of the author in the usual manner.

M. TARENNE

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M. TARENNE has discovered, that the slimy juice of snails is a specific for the cure of hernia, when the ruptured part can be returned, and it is not dangerous to confine it in the body. When this point is ascertained, he directs that a truss be made, having the ball at the end concave instead of convex, as usual, for the reception of a cup of equal diameter with the orifice of the hernia. The cup must be of porcelain, glass, or earthenware, that the liquor may not penetrate it, or undergo any alteration; and the edges of it should be turned, that they may not incommode the patient. It is to be filled with wool, which must be changed every other day. Two, three, or four hundred snails, are then to be procured, and kept in a place where they can procure food, as only two or three, or if they are small, six or eight, are to be used every day. The patient, before he rises, and after he has been in bed, removes the cup from the truss, and pricks the snail in different places with a pin. From each wound the snail gives out, through the opening in his shell, sometimes a bluish, sometimes a grey liquid, which must be caught on the wool in the cup. If only a thick froth oozes out, the snail must be thrown aside, and another taken in his stead. The cup being sufficiently filled with liquor, must always be placed exactly in the same situation on the affected part, then covered with a white linen cloth, and the ball of the truss applied on it. The latter must be sufficiently tight, to prevent the fluid from escaping. During this treatment, which will last three or four months, or more, the only precautions necessary to be taken are to shave the part once in four days, and not to leave it long uncovered, for fear of cold. If the cup rubs off the skin, it must be removed till the place is healed. In this case, the patient may remove the truss altogether at night, if it can be done without danger; and in the day-time he may wear it dry, filling the cavity with wool, and covering the hernia with a bit of cloth. By this treatment, a common hernia may be cured in two, three, or at most four months; after which, however, the patient should continue to wear the truss for six weeks, or two months, till the wound is sufficiently healed, to permit the muscles to resume their natural action.

M. VAUQUELIN, in the name of the Committee of the Chemical Arts, has lately reported on a manufacture of tallow for candles, professed to be purified from all animal substances of an injurious nature, to be free from all moisture, and not at all discoloured. "The tallow," says he, "which I carefully examined, is demi-transparent, perfectly dry, and sonorous. It is indeed so very dry, that when a blade of iron is passed over it, only lightly touching it, it gives an extremely lively phosphoric light, occasioned, according to all appearance, by an electric motion; for when this tallow is recently melted, and the surrounding air is extremely dry, the mere passing of the hand on it is sufficient to produce sparks. The dryness of this tallow is still farther demonstrated

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monstrated by its perfect transparency when melted: at the temperature of boiling water, neither bubbles nor clouds are discernible. This tallow, it is affirmed, may be kept without any discolouration or rancidity for two years. The candles made of it are extremely white, their light is very pure, they emit little or no smoke; they do not gutter or run, and require snuffing less frequently than others. They are about five per cent. higher in price than those of common manufacture."

It has long been matter of surprise to foreign naturalists, that although in this country, botany has been cultivated with a zeal and success which leave nothing to desire, scarcely any attention has been hitherto paid to the sister science entomology; so that while the vegetable productions of the British Isles are for the most part well known, and accurately described, not a third of our numerous tribes of insects have been noticed or enumerated. This neglect is, doubtless, principally to be attributed to the want of a popular and comprehensive elementary work, adapted to the present improved state of the science. To supply this desideratum, and facilitate the study in Britain, of a department of natural history, singularly amusing and instructive, abounding in objects striking in their shape and structure, splendid in decoration, and in the highest degree interesting in habits, manners, and economy, the Rev. W. KIRBY, A. B. F. L. S. author of Monographia Apum Angliæ, and Mr. W. SPENCE, F. L. S. are engaged in preparing an Introduction to Entomology, which is in a state of considerable forwardness. The plan of the work is popular; but without overlooking science, to the technical and anatomical departments of which, much new matter will be contributed. Its object, after obviating objections, and removing prejudices, is to include every thing useful or interesting to the entomological student, except descriptions of genera and species, which are foreign to the nature of such a work.

The subject of apartments with a graduated temperature, has for some time attracted the attention of the medical public. We are glad to find, by a paper from Dr. Pearson, in the Philosophical Magazine, that a speculation is on foot for erecting spacious buildings on such a plan, to receive those invalids as cannot change their residence to a softer climate. On this occasion we must do justice to our own Journal for having first suggested such a plan. In vol. v. p. 311, is a letter from Dr. Adams to Dr. Willan, giving an account of the climate of Madeira, which he concludes thus. "It may be well worth your while to try whether spacious buildings, regularly heated, safely ventilated, and large enough to admit of necessary exercise, may not answer the purpose for such whose want of means, of courage, or of leisure, prevent their taking a voyage to a more genial climate."

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The College of Surgeons have at length proceeded so far with their building, under the auspices and by the pecuniary assistance of the nation, that Mr. Hunter's Collection is now under arrangement, at their Museum in Lincoln's Inn Fields, or rather in Portugal Street, for as yet only that side of the building is completed. The theatre is spacious, and well contrived. Sir William Blizard has given his second lecture; and after his course, Mr. Home commences another on Comparative Anatomy.

One of the most remarkable facts in the history of geography, is communicated by letters conveyed in the last ships from the Cape of Good Hope. The island of Bossen, or Penguin, sometimes called Seal Island, at the western extremity of Table Bay, has entirely disappeared beneath the waters. An earthquake was felt at Cape Town, in December, only two leagues distant, by which some damage was occasioned to the houses; but we do not find that any lives were lost at that place; and it is supposed that the convulsion extended to Bossen. The island was about two miles in length and one in breadth, and was, although flat, somewhat more elevated above the surface of the sea, than the contiguous island of Elizabeth. The Dutch, when in possession of the Cape, kept a guard of twenty-four men on Bossen; and it was employed as a place of banishment for criminals, to the number of from seventy to one-hundred, who dug lime-stone to supply materials for the buildings on the adjacent continent. How many lives have been lost by this awful visitation, is not ascertained.

Dr. ADAMS has nearly completed his preparation for a Course of Lectures on Pathology and Therapeutics. It is his intention to deliver them early in the spring, as soon as the season becomes too much advanced for general dissecting. Further particulars will be given in due time.

Dr. CLOUGH, Physician Man-Midwife to the St. Mary-le-bone General Dispensary, &c. will on Monday the 12th of March, at ten in the morning, commence his next Course of Lectures on the Science of Midwifery, including the Diseases of Women and Infants; and for the convenience of Students attending other Classes, Hospitals, &c. his Evening Course on Tuesday the 13th at seven, at his Lecture Room, 68, Berner's Street. For a Prospectus and Syllabus, apply to Dr. Clough as above.

Dr. REID will commence his Spring Course of Lectures, on the Theory and Practice of Medicine, on Monday the 19th of March, at six o'clock in the evening, at his house, Grenville Street, Brunswick Square, where the Course will be continued until its conclusion in the latter end of May.

Dr. LATHAM has in the press, Facts and Opinions concerning Diabetes.

Mr. LEE, surgeon, of Shields, will shortly publish an Essay on Mortification.

Dr. SMITH is printing a Translation of Le Roy's Instructions for Gouty and Rheumatic Persons.

A Fourth

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A Fourth Edition of Dr. TROTTER's Essay on Drunkenness, and its Effects on the Human Body, with considerable additions, is now in the press, and will be published in the Course of next month.

Dr. WATSON has nearly ready for publication, a Theoretical and Practical View of the Instruction of the Deaf and Dumb; containing Hints for the Correction of Impediments in Speech, and illustrated by numerous Plates.

We have to lament the early death of a truly valuable member of the profession, Mr. SAUNDERS, of Ely Place, Surgeon to the London Infirmary for Eyes and Ears, at the age of 37. He died somewhat suddenly, but with occasional symptoms which afforded too much probability of mischief in a most important organ. At uncertain intervals, a few weeks before his death, he complained of paralysis in distant parts of his extremities, and sometimes of loss of memory for a short period. On the day of his death he appeared better than usual, till he fell senseless almost before he could express his own sensations. The body was examined by Mr. Astley Cooper and other gentlemen. In the brain, near the pons varolii, was found an abscess, which had gradually extended to an artery, the ulceration of which produced hæmorrhage and immediate death. Due respect was paid to his merits as a scientific character, and the first institutor of a benevolent charity, which through his well directed exertions, aided by his coadjutor Dr. Farr, had acquired an extent of patronage which nothing but the general acknowledgement of its usefulness could have produced. He was buried in the vault of his parish church, St. Andrew's, Holborn, and his funeral was publicly attended.

NEW MEDICAL PUBLICATIONS.

Observations on the Rupture of the Uterus, on the Snuffles in Infants, and on Mania Lactea. By Thomas Denman, M. D. 8vo. 2s 6d.

Cursory Remarks on Corpulence. By a Member of the Royal Corporation of Surgeons, 2s.

ERRATUM.

In the first article of our last Number, in the Superscription, for James, *read* Henry Earle.

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THE

Medical and Physical Journal.

VOL. XXIII.] APRIL, 1810. [NO. 134.

Printed for R. PHILLIPS, by W. Thorne, Red Lion Court, Fleet Street, London.

The CASE *of Governor* SULLIVAN *of Massachusetts.*

[Communicated by Dr. J. C. WARREN.]

THE symptoms of organic disease of the heart, are marked with extraordinary clearness in the following case. The opportunity for observing them was very favourable; and there was every incitement to close observation, which could arise from the important and interesting character of the patient. These advantages will justify an uncommon minuteness in the detail of the case; especially, as the most accurate knowledge of a complaint is obtained from a successive view of its stages.

The late Governor of this commonwealth was endowed with most vigorous powers of mind and body. At the age of 16, he was attacked with fits of epilepsy, which first arose from a sudden fright, received on awaking from sleep in a field, and beholding a large snake erecting its head over him. As he advanced in life, they became more frequent, and were excited by derangement of the functions of the stomach, often by affections of the mind, by dreams, and even by the sight of the reptile which first produced the convulsions.

At the commencement of the American revolution, he became deeply engaged in public affairs; and from that time devoted himself to intense application to business, with which the preservation of his health was never allowed to interfere. In the expedition against Rhode Island, an attack of inflammation of the lungs had nearly proved fatal to him.

In the beginning of the year 1807, he suffered severely from the epidemic catarrh; and a remarkable irregularity of the pulse was then perceived to be permanent, though there is some reason to believe, that this irregularity had previously existed, during the fits of epilepsy, and for a few days after them. In the summer, while he was apparently in good health, the circulation in the right arm was

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suddenly and totally suspended; yet, without loss of motion or sensation. This affection lasted from noon till midnight, when it as suddenly ceased, and the circulation was restored. In the autumn he was again seized with the influenza, which continued about three weeks, leaving a troublesome cough of two or three months' duration, and a slight occasional difficulty of breathing, which at that time was not thought worth attention. Soon after, in November, he had one or two singular attacks of catarrhal affection of the mucous membrane of the lungs, which commenced with a sense of suffocation, succeeded by cough and an expectoration of cream coloured mucus, to the quantity of a quart in an hour, with coldness of the extremities, lividity of the countenance, and a death-like moisture over the whole body. These attacks lasted six or eight hours, were relieved by emetics, and disappeared, without leaving a trace behind.

At this time, he began to complain of palpitations of the heart; yet, it is probable, that he had been affected with these before, since he was unaccustomed to mention any complaint, which was not sufficiently distressing to require relief. He experienced a difficulty of respiring, as he ascended the stairs, and became remarkably susceptible of colds, from slight changes of clothing, moisture of the feet, or a current of cold air. His sleep was unquiet in the night, and attended with very profuse perspiration; and, in the latter part of the day, a troublesome heaviness occurred. The sanguiferous vessels underwent an extraordinary increase, or, at least, became remarkably evident. The pulsation of the carotid arteries was uncommonly strong; the radial arteries seemed ready to burst from their sheaths; the veins, especially the jugulars, in which there was often a pulsatory motion, were every where turgid with blood. The countenance was high coloured, and commonly exhibited the appearance of great health; but, when he was indisposed from catarrh, this florid red changed to a livid colour; which also, after an attack of epilepsy, was observable for two or three days on the face and hands. This livid hue was often attended, under the latter circumstances, with something like ecchymosis over the face, at first formidable in its aspect, and gradually subsiding, till it had the general appearance of an eruption, which also soon vanished.

These symptoms increased, almost imperceptibly, during the five first months of the year 1808. Much of this time was passed in close application to official duties; and it seemed

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seemed that a constant and regular occupation of the mind had the effect of obviating the occurrence of any paroxysm of disease, as well of epilepsy, as of difficult respiration; and that a very sudden and disagreeable impression generally produced either one or the other. There were, indeed, independently of such circumstances, some occasional aggravations of those symptoms. Some nights, for example, were passed in sitting up in bed, under a fit of asthma, as it was called; sometimes the mind became uncommonly impatient and irritable; the body gradually emaciated; yet the appetite and digestive functions remained principally unimpaired; and persons around were not sensible of any material alteration in the condition of the patient.

On the approach of warm weather, in June, the violence of the symptoms increased. Paroxysms of dyspnœa occurred more frequently, and were more distressing. They commenced with symptoms of slight febrile affection, such as hot skin, hard, frequent, and more irregular pulse, disordered tongue, loss of appetite, and derangement of the digestive functions. This kind of paroxysm lasted two or three days. Evacuations of blood from the nose and hæmorrhoidal vessels, which before rarely occurred, became frequent; a fulness at the upper and right side of the abdomen was sometimes perceptible, formed apparently by temporary enlargement of the liver; the difficulty in ascending an eminence increased sensibly. In the intervals of these attacks, which were variable, but generally continuing ten or twelve days, the strength was frequently good, and accompanied by a great flow of spirits, and an aptitude, or rather ardour, for business.

Such was the course of this complaint until the latter part of August, when a very severe paroxysm occurred. It commenced, like the former, with febrile symptoms, but those more violent than before. The countenance became high coloured; the dyspnœa excessive, and rendered almost suffocating by a slight movement, or attempt to speak; the pulse hard, very irregular, intermittent, and vibrating; and the digestive functions were suspended. These symptoms soon increased to the highest degree. The respiration was so distressing, as to produce a wish for speedy death; the eyes became wild and staring. No sleep could be obtained; for, after dosing a short time, he started up in violent agitation, with the idea of having suffered a convulsion. During the few moments of forgetfulness, the respiration was sometimes quick and irregular,

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sometimes slow, and frequently suspended for the space of twenty-five, and even so long as fifty seconds. At the end of three days, the febrile heat was less permanent; the red colour of the face changed to a death-like purple; the hands and face were cold, and covered with an adhesive moisture; the hardness of the pulse diminished, and a degree of insensibility took place. I seized this opportunity to examine the region of the heart, which had not been done before, from fear of alarming the active and irritable mind of the patient. The heart was perceived palpitating, obscurely, about the 7th and 8th ribs; its movements were very irregular, and consisted in one full stroke, followed by two or three indistinct strokes, and sometimes by an intermission, corresponding with the pulse at each wrist. The pulsation was felt more distinctly in the epigastric region. During this paroxysm, a recumbent posture was very uneasy, and the patient uniformly preferred sitting in a chair. When the recumbent posture was assumed, the head was much raised, inclined to the right side, and supported by the hand; the knees were drawn up as much as possible. He could not bear an horizontal posture; nor did he ever lie on the left side, except a short time after the application of a blister. At the end of the fifth day, his sufferings abated, but the sudden affusion of a small portion of a cold liquid on the head produced a severe fit of epilepsy. This was followed by a return of the symptoms equally distressing, and more durable, than in the first attack.*

This violent agitation gradually subsided, and was followed by a pleasant calm. The natural functions resumed their ordinary course; his appetite returned; his enjoyment of social intercourse was unusually great; and he amused and instructed his friends by the immense treasures of information, which his talents and observations had afforded him, and which, he seemed to feel, would soon be lost. At the end of September, the feet began to swell, and after some time, the enlargement extended up to the legs and

* During this time, it was thought adviseable to acquaint his friends, that an organic disease of the heart existed, which doubtless consisted in an ossification of the semilunar valves of the aorta, attended, perhaps, by enlargement of the heart; that the disease was beyond the reach of art, and would prove fatal within three months, possibly very soon; that if it lasted so long, it would be attended by frequent recurrences of those distressing symptoms, general dropsical affections, and an impaired state of the mental faculties.

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and thighs, and increased to an extraordinary degree; the abdomen next swelled, and, after it, the face. Toward the end of October, there were some indications of water in the chest; there was a constant shortness and difficulty of breathing; the cough, till now rare, became more frequent and troublesome; the contraction of the thoracic cavity rendered the action of the heart more painful, to that beside an uniform stricture across the breast, he sometimes described a dreadful sensation like twisting of the organs in the thorax. He suspected the existence of water there, and was inclined to consider it as his primary disease, but was easily convinced of the contrary. At one time he had a suspicion of a complaint of the heart, and, although he had never heard of a disease of that organ, slightly intimated it to one of his friends, and mentioned a sensation he had experienced in the chest, which he compared to a fluid driven through an orifice too narrow for it to pass freely. In this month, beside the dropsical affections and increase of cough, he had occasional painful enlargements of the liver, frequent starting up from sleep, a slight degree of dizziness, a great disposition for reveries, and sometimes extraordinary illusions, one of which was, that he was two individuals, each of whom was dying of a different disease. This idea often occurred, and gave him much uneasiness. He was also afflicted with long continued frightful dreams, and sometimes a slight delirium.

After the use of much medicine, on the 6th of November, the effused fluids began to be absorbed, and passed out through the urinary organs with such rapidity, that on the 12th the dropsical enlargements had nearly disappeared. The pulse was much reduced, in hardness and frequency, by the medicine, and, as it fell, he became more easy. On the 10th, the state legislature convened, and the call of business roused, like magic, the vigor of his mind; and the symptoms of his disease almost disappeared. During this session, he made little complaint, dictated many important communications, and attended to all the duties of his office, without neglecting the most minute. As soon as the legislature adjourned, he declared, that his work was finished, and that he had no desire to remain longer in this world. He entreated that no farther means should be used to prolong his existence, and immediately yielded himself to the grasp of disease, which appeared waiting with impatience to inflict its agonies.

From this moment, the distressing difficulty of breathing had very slight remissions. The consequent disposi-

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tion to incline the superior part of the body forward, for the purpose of facilitating respiration, increased so much, that he frequently slept with his head reposed on his knees. The cough became occasionally very violent, and was always attended with an expectoration of a brown coloured mucus, sometimes tinged with blood. The abdominal viscera lost their activity. The face was sometimes turgid and high coloured, at other times, pallid and contracted. A gradual abolition of the powers of the mind ensued, with a low delirium, and two short fits of phrenzy. The state of the circulation was very variable; the pulse at the wrists principally hard and vibrating, rarely soft and compressible; the less pulsations becoming more indistinct, and, at length, scarcely perceptible. No perfectly distinct beat of the heart was felt, but a quick undulating motion, not corresponding with the pulse at the wrist. Three days before death, the arteries assumed this undulatory motion, corresponded with the motion of the heart, and, for forty-eight hours, lost the irregularity of pulsation.*

Once or twice the expiring faculties brightened. On the 30th of November he awoke, as if from death, conversed very pleasantly for two or three hours, and humorously described scenes, which he had witnessed in his youth.

On the 4th of December, came on the second attack of furious delirium. Insensibility, and great prostration of strength, ensued. The respiration became very slow, and obstructed by the accumulation of mucus in the lungs; the pulse very intermittent, then regular, and finally fluctuating. A hiccough commenced; coldness of the extremities and lividity of the face followed, and continued three days before death. On the 9th, the incurvated posture was relinquished, and the head sunk back upon the pillow; the respirations

* The celebrated Morgagni has recorded some cases of organic disease of the heart discovered by dissection, the symptoms of which do not exactly accord with those observed in this and the succeeding cases. It should be remembered, however, that many of the subjects of those cases were not examined by him, while living, and others but a very short time before death. But it appears, that, in the last stage of this disorder, some of the most important symptoms may be materially changed, especially the state of the pulse, dyspnœa and palpitations. Thus in the case related above, and in some others, the pulse became regular, the palpitations subsided, and the dyspnœa was less observable. The cases of that accurate anatomist, therefore, are not so contradictory of those related here, as might at first be imagined.

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respirations then diminished in frequency, till they became only two in a minute; and at the end of twenty-four hours they very gradually ceased.*

DISSECTION, NINE HOURS AFTER DEATH. *External Appearance.*—The whole body was much emaciated; the face pale and contracted. The hands were slightly œdematous. Discolourations, answering to the ribs, were observed on the thorax; many small purple spots, hard and prominent on the back; excoriations on the nates; and purple spots, resembling incipient mortification on the heel and toe.

THORAX.—The integuments of the thorax were free from fat; the cartilages of the ribs ossified in various degrees, some perfectly, others slightly. Upon laying open the cavity of the thorax, it was found to contain about three pints of water, the proportion being greatest on the left side.

The lungs were contracted into a smaller compass than usual, and were very firm to the touch. Their colour anteriorly was whitish, with small distinct purple spots; posteriorly, of a deep red, with similar spots. The right lobe adhered closely to the pericardium; it also adhered to the pleura costalis, by a great number of strong cords, which seemed to be elongations of the original adhesions. Some of them were nearly as hard as ligament, and many an inch in length. Internally, the lungs presented a very compact structure. Their cells were crowded with mucus, and their vessels filled with black blood, partly fluid, and partly coagulated. Some portions were firmer and more condensed than others, but no tubercles were discovered.

The pericardium, viewed externally, appeared very large, and occupied almost the whole space behind the opening, formed by removing the sternum and cartilages of the ribs. It was situated principally on the left side, and contained about double the usual quantity of water; but was principally filled by the enlarged heart, to which it adhered anteriorly about two inches, near its base. Its parietes were, in every part, very much thickened and hardened.

The heart presented nearly its usual colour and form, excepting on its anterior surface, which was somewhat discoloured by coagulated lymph. It was enlarged in bulk,

* Governor Sullivan was born December 4th, 1744, and died December 10th, 1809.

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to at least one half more than the healthy size. The auricles and ventricles contained coagulated blood. The tricuspid valves were in a sound state. The left auricle was double the usual size. The left ventricle was enlarged, about three times thicker and much firmer than usual. The mitral valves were very much thickened, and near the insertion of their columnæ, which were sound, cartilaginous, so that they were quite rigid, and the opening made by them, from the auricle to the ventricle, was scarcely large enough to admit the passage of a finger. The semilunar valves of the aorta were ossified at their bases and apices, and the portion intermediate, between the base and apex, partly ossified, and partly cartilaginous, so as to render the valves very rigid. The aorta was at least one half larger than usual, especially at its arch. The arteria innominata, the carotid, and subclavian arteries, were uncommonly large and thick. The coronary arteries were considerably ossified.

Abdomen.—The omentum was destitute of fat. The stomach distended with flatus on the pyloric side; its cardiac extremity, lying under the liver, was pressed down and contracted. The liver was shrunk; its tunic corrugated, as if it had been distended, and bearing marks of inflammation; its substance harder than usual; its vessels, when divided, pouring out liquid black blood. The gall-bladder was filled with bile. The kidneys were thicker, and more irregular in form, than is common. The abdominal cavity contained some water.

Head.—The bones of the cranium were unusually thick. The dura mater, which was thickened, and in many places bore marks of former inflammation, adhered to the bone at the vertex. On its internal surface, near the longitudinal sinus, there was a small ossified portion, half an inch long, and the eighth of an inch thick. The convolutions of the brain were narrow, and very strongly marked. The pia mater bore marks of pretty extensive inflammation, and adhered to the dura mater at the vertex. The cortical substance ran deep into the medullary part of the brain. The ventricles contained about double the usual quantity of water; their parts were all remarkably well defined. The vessels of the pia mater, over the corpora striata, were unusually injected with blood. The velum interpositum was very firm; the plexus choroides uncommonly thick, but pale; the opening from the right to the left ventricle large. The vessels of the brain were generally not much filled with blood.

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THE BLOOD appeared every where fluid, except in some portions of the lungs, and in the cavities of the heart. It was very dark coloured, perhaps more than ordinarily thin, and oozed from every part which was cut.

THE CELLULAR MEMBRANE, in all dependent parts, effused, when cut, a serous fluid.

This industrious and accurate Practitioner has just published, at Boston, a Collection of Cases of Organic Diseases of the Heart, from a comparison of which with other Diseases in some respects resembling them, he deduces the following Remarks.

MORBID changes in the organization of the heart are so frequent, as to have attracted the observation of those who have devoted any attention to the study of morbid anatomy. Derangements of the primary organ of the circulation cannot exist without producing so great disorder of the functions of that and of other parts, as to be sufficiently conspicuous by external signs; but, as these somewhat resemble the symptoms of different complaints, especially of asthma, phthisis pulmonalis, and water in the thorax, it has happened, that each of these has been sometimes confounded with the former. The object of the following statement of cases is to shew, that, whatever resemblance there may be in the symptoms of the first, when taken separately, to those of the latter diseases, the mode of connection and degree of those symptoms at least is quite dissimilar; and that there are also symptoms peculiar to organic diseases of the heart, sufficiently characteristic to distinguish them from other complaints.

The first notice of disorder is commonly from an irregular and tumultuous movement of the heart, which occurs some time before any perceptible derangement of the other functions. This irregularity slowly increases, and arrives at its height before the strength of the patient is much impaired, at least in the cases which I have noticed; and as the vigour of the patient lessens, the force of the palpitations diminishes. These palpitations are often so strong, as to be perceptible to the eye at a considerable distance. They are seldom most distinct in the place where the pulsation of the heart is usually felt. Sometimes they are perceived a little below; often in the epigastric region; and not unfrequently beneath, and on the right side of the sternum.

After the palpitations have lasted some time, a little difficulty of breathing, accompanied with sighing, is perceived, especially on any great exertion, ascending an eminence,

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eminence, or taking cold, of which there is an uncommon susceptibility. This dyspnœa becomes, as it increases, a most distressing symptom. It is induced by the slightest cause; as by an irregularity in diet, emotions of the mind, and especially movement of the body; so that on ascending stairs quickly, the patient is threatened with immediate suffocation. It occurs at no stated periods, but is never long absent, nor abates much in violence during the course of the disease. It is attended with a sensation of universal distress, which perhaps may arise from the circulation of unoxygenated blood, or the accumulation of carbon in the system; for the countenance becomes livid, and the skin, especially that of the extremeties, receives a permanent dark colour. This dyspnœa soon causes distress in lying in an horizontal posture. The patient raises his head in bed, gradually adding one pillow after another, till he can rarely, in some cases never, lie down without danger of suffocation; he inclines his head and breast forward, and supports himself upon an attendant, or a table placed before him. A few hours before death the muscular power is no longer capable of maintaining him in that posture, and he sinks backward. The dyspnœa is attended with cough, sometimes through the whole of the disease, sometimes only at intervals. The cough varies in frequency. It is always strong, and commonly attended with copious expectoration of thick mucus, which, as the disease advances, becomes brown coloured, and often tinged with blood; a short time before death it frequently consists entirely of black blood.

The changes in the phenomena of the circulation are very remarkable. The sanguiferous system is increased in capacity; the veins, especially, are swelled with blood; the countenance is high coloured, except in fits of dyspnœa, when it becomes livid; and it is very frequently puffed, or turgid. The brightness of the eyes, dizziness, which is a common, and head-ache, which is a frequent symptom, and in some cases very distressing, are probably connected with these changes. The motions of the heart, as has already been stated, are inordinate, irregular, and tumultuous. The pulse presents many peculiarities. In some cases, probably where there is no obstruction in the orifices of the heart, it remains tolerably regular, and is either hard, full, quick, vibrating and variable, or soft, slow, compressible and variable. Most commonly, perhaps always, when the orifices of the heart are obstructed,

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it is vibrating, very irregular, very intermittent, sometimes contracted and almost imperceptible, very variable, often disagreeing with the pulsation of the heart, and sometimes differing in one of the wrists from the other.

The functions of the brain suffer much disturbance. Melancholy, and a disposition for reverie, attend the early stages of the complaint; and there is sometimes an uncommon irritability of mind. The dreams become frightful, and are interrupted by sudden starting up in terror. Strange illusions present themselves. The mental faculties are impaired. The termination of the disease is attended with slight delirium; sometimes with frenzy, and with hemiplegia.

The abdominal viscera are locally, as well as generally affected. Although the digestive functions are occasionally deranged, the appetite is at some periods remarkably keen. The action of the intestines is sometimes regular, but a state of costiveness is common. The liver is often enlarged, probably from accumulation of blood. This distention is attended with pain, varies much, and, in all the cases I have seen, has subsided before death, leaving the coats of the liver wrinkled, flaccid, and marked with appearances of inflammation, caused by the distention and pressure against the surrounding parts. An effect of the accumulation of blood in the liver, and consequently in the mesenteric veins, is the frequent discharge of blood from the hæmorrhoidal vessels. This occurs both in the early and late stages of the disease, and may become a formidable symptom. Evacuations of blood from the nose are not uncommon.

Dropsical swellings in various parts of the body succeed the symptoms already enumerated. They commence in the cellular membrane of the feet, and gradually extend up the legs and thighs; thence to the abdominal cavity, to the thorax, sometimes to the pericardium, to the face and superior extremities; and, lastly, to the ventricles and meninges of the brain. These collections of water may be reabsorbed by the aid of medicine; but they always return, and attend, in some degree, the patient's death.

There is no circumstance more remarkable in the course of this complaint, than the alternations of ease and distress. At one time the patient suffers the severest agonies, assumes the most ghastly appearance, and is apparently on the verge of death; in a day or a week after, his pain leaves him, his appetite and cheerfulness return, a degree of vigour is restored, and his friends forget that he has been ill,

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ill. The paroxysms occasionally recur, and become more frequent, as the disease progresses. Afterwards the intermissions are shorter, and a close succession of paroxysms begins. If the progress of the complaint has been slow, and regular, the patient sinks into a state of torpor, and dies without suffering great distress. If, on the contrary, its progress has been rapid, the dyspnœa becomes excessive; the pain and stricture about the præcordia are insupportable; a furious delirium sometimes succeeds; and the patient expires in terrible agony.

Such are the symptoms which a limited experience has enabled me to witness. Others, equally characteristic of the disease, may probably exist.

From this description of the symptoms it would appear, that there could be no great difficulty in distinguishing this from other diseases; yet probably it has sometimes been confounded with asthma, and very frequently with hydrothorax. Some may think, that there is no essential difference in the symptoms of these diseases. The resemblance between them, however, is merely nominal.

The cough in hydrothorax, unlike that which attends organic diseases of the heart, is short and dry; the dyspnœa constant, and not subject to violent aggravations. An uneasiness in an horizontal posture attends it, but no disposition to incurvate the body forward. These are some of the points, in which these two diseases slightly resemble each other. Those, in which they totally differ, are still more numerous; but as most of them have been already mentioned, it is unnecessary to indicate them here.

It is probable, that the two diseases commonly arise in patients of opposite physical constitutions; the hydrothorax in subjects of a weak relaxed fibre; the organic diseases of the heart in a rigid and robust habit. The subjects of the latter affection, in the cases which have fallen under my observation, were, with the exception of one or two instances, persons of ample frame, and vigorous muscularity, and who had previously enjoyed good health. In nearly all these cases the collection of water was principally on one side, yet the patients could lie as easily on the side where there was least fluid, as on the other; which in the opinion of most authors, is not the case in primary hydrothorax. It should also be observed, that, in many of the cases, there was only a small quantity of water in the chest, and that in neither of them was there probably sufficient to produce death. May not primary hydrothorax be much less frequent than has commonly been imagined?

Idiopathic

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Idiopathic dropsy of the pericardium may, perhaps, produce some symptoms similar to those of organic disease of the heart; but it appears to be an uncommon disorder, and I have had no opportunity of observing it. In the fourth case, a remarkable disposition to syncope, on movement, distinguished the latter periods of the disease, and might have arisen from the great collection of water in the pericardial sac.

The causes of this disease may, probably, be whatever violently increases the actions of the heart. Such causes are very numerous; and it is therefore not surprising, that organic diseases of the heart should be quite frequent. Violent and long continued exercise, great anxiety and agitation of mind,* excessive debauch, and the habitual use of highly stimulating liquors are among them.

The treatment of this complaint is a proper object for investigation. Some of its species, it is to be feared, must for ever remain beyond the reach of art; for it is difficult to conceive of any natural agent sufficiently powerful to produce absorption of the thickened parietes of the heart, and at the same time diminish its cavities; but we may indulge better hopes of the possibility of absorbing the osseous matter and fleshy substance deposited in the valves of the heart and coats of the aorta. A careful attention to the symptoms will enable us to distinguish the disease, in its early stages, in which we may undoubtedly combat it with frequent success.

Although it may not admit of cure, the painful symptoms attending it may be very much palliated; and as they are so severely distressing, we ought to resort to every probable means of alleviating them. Remedies, which lessen the action of the heart, seem to be most commonly indicated. Blood-letting affords more speedy and compleat relief, than any other remedy. Its effect is quite temporary, but there can be no objection to repeating it. The digitalis purpurea seems to be a medicine well adapted to the alleviation of the symptoms, not only by diminishing the impetus of the heart, but by lessening the quantity of circulating fluids. Its use is important in removing

* It has been remarked by the French physicians and particularly by M. Corvisart, physician to the emperor of France, that these organic diseases were very prevalent after the revolution, and that the origin of many cases was distinctly traced to the distressing events of that period.

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moving the dropsical collections; and for this purpose it may often be conjoined with mercurials. Expectoration is probably promoted by the scilla maritima, which, in a few cases, seemed also to alleviate the cough and dyspnœa. Blisters often diminish the severe pain in the region of the heart, and the uneasiness about the liver. It has been seen, that the excessive action of the heart sometimes produces inflammation of the pleura and pericardium, and that the distention of the coat of the liver has the same effect upon that membrane in a slighter degree. Vesication may probably lessen those inflammations. When the stomach and bowels are overloaded, a singular alleviation of the symptoms may be produced by cathartics, and even when that is not the case, the frequent use of moderate purgative medicines is advantageous. Full doses of opium are, at times, necessary through the course of the complaint. The antiphlogistic regimen should be carefully observed. The food should be simple, and taken in small quantities, stimulating liquors cautiously avoided, and the repose of body and mind preserved, as much as possible.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THAT superfœtation was an attribute of all animal bodies was not at all questioned by our medical ancestors; and even at this comparatively enlightened period, the majority of medical practitioners have, by no means, made up their minds on the subject. This indecision has been kept up by occasional instances of twins being born in different states of growth. A case of this kind having happened to me within this month, and there having been but few such placed upon record within the last age, I have taken the liberty of sending it for insertion in your Journal, with a few remarks upon the doctrine of superfœtation in general.

A woman was delivered of her fourth child with the usual phænomena; but with the after-birth, there came away a fœtus seemingly of five month's growth, dead, and considerably flattened, but not at all putrid, although the skin had nearly the colour of lead. The only reason the woman could offer for such an occurrence, was, that when

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when five month's gone with child, she was so much frightened by a cow as to fall down. After that time, however, she never felt any particularly unpleasant sensation, although she had always been certain that she should have twins.

In every case of this kind that I have seen or heard of, the second fœtus has been much younger than it was in this instance. Here, however, we must allow, either that superfœtation had taken place, or that the woman had carried in her uterus a bulk of extraneous matter, which, reasoning a priori, we must have concluded, would inevitably have stimulated the uterus to contraction sufficient for its expulsion. The case, therefore, is interesting, inasmuch as it proves the great power which the living action going on in the uterus had, in enabling it to resist the stimulus produced by so large an extraneous body existing in its cavity.

There still, however, remain a few circumstances respecting superfœtation, which deserve notice.

No person who has attentively considered the anatomy of the gravid uterus, can for a moment suppose that superfœtation can happen after conception has taken place for some time, because it is impossible that the seminal fluid should get in contact with the ovarium; for not to mention the sides of the uterus being in perfect contact with the membranes within them, the semen could not by any possibility enter the cervix uteri, in consequence of its being stopped up by a gelatinous substance, so tough, that Dr. Hunter says, "upon attempting to pass a probe through it, the probe will as readily force its way through the hard substance of the uterus itself, as through the cementing jelly." We are not told, however, by any author, at what time this jelly is thrown out by the cervix, so that we do not know how long after conception the os uteri remains open.

Dr. Hamilton states, that "bitches from admitting a variety of dogs while they are in season, will bring forth puppies of these different species." This he explains, by the fact of the uterus of brutes being divided into cells or horns. Such an explanation, however, must be nugatory; because, although the uterus is divided into two or more cornua, there still is but one cervix uteri, which, as it is of course stopped up soon after conception takes place, would as certainly hinder the occurrence of a second conception, as in the human subject. Dr. Hamilton indeed, says, likewise, that "the ova in brutes do not attach themselves

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themselves to the uterus so early as in the human subject, but are supposed to receive their nourishment for some time by absorption.

This however, is an assertion most certainly without the smallest proof, and in my mind, without the smallest probability; nature never makes a variety in particular structures, unless it is to answer some end;—and why should not the ovum of an animal attach itself to that animal's uterus, as soon as the ovum of the human creature to the human uterus? There is, however, I believe, upon record, an instance of a black woman in America, bearing full-grown twins, one being a black child, and the other a mulatto. This case clearly puts Dr. Hamilton's distinctions between the human species and other animals out of the question. How, therefore, are these occurrences to be explained? Let us recur to the known facts attending conception; perhaps, we may then be led to conclusions concerning superfœtation, which have not, as yet, been published by any author on the subject.

Conception it would seem, is a work of time.—We know that the seminal fluid will take some time in passing along the Fallopian tubes to the ovarium; it is well known also, that the ovum is a considerable time in passing backwards into the uterus. The precise time, indeed, is unknown, but in bitches it must be considerable, perhaps some days, because we know, that before the ovum enters the uterus, there is that peculiar fluid or coagulable matter thrown out by its internal surface, which, as the fœtus descends, covered by its chorion and amnion, forms the decidua vera and decidua reflexa.

This gelatinous flaky matter will prevent the application of fresh semen to the remaining ovarium, as certainly as the jelly stopping up the cervix uteri, which probably, indeed, is thrown out at the same time, therefore, *after* this time, a fresh conception is impossible. We must, however, conclude, that *before* this matter is thrown out, seminal fluid in a second connexion, may find its way into the remaining horn of the bitch's uterus, or (by parity of reasoning) into the remaining Fallopian tube of the human uterus; and that, therefore, we may strictly say, that superfœtation *can* take place in the very early stages of pregnancy, although not after the ovum is fairly lodged in the cavity of the uterus.

H.

February 24, 1810.

Dr.

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Dr. Alder's *Proofs of his Theory from the remote Causes of Diseases and Fevers.*

(In Continuation.)

In the early part of these communicaitons, I took tolerably full notice of the sources and prevalence of bad air; but this was done with a view to shew the application of this in cases where "contagion" was supposed to be the chief or sole agent in the production of diseases, and to point out the great similarity (I may say *identity)* in certain fevers, obviously owing to bad air, and almost generally or altogether attributed to it; and others, in which the application of bad air is not so evident, and which (partly from that circumstance, and partly from their prevailing more extensively) have, till within these few years, nearly universally, and now are very generally, particularly in Europe, attributed to contagion. It was written also with the view of shewing how destructive it would be to our commerce, and consequently to the kingdom, to enforce quarantines under many circumstances which have happened, and are likely to occur again in such a way as our present most prevailing febrile-contagion doctrines require it to be enforced; or in any manner indeed, which at all approaches to such a way: but my subject now requires me to write with a more undivided and definite object; and I have something more to add.

I must first refer the reader to what I have there written, and then I will ask him, if the following abstract of some of the more interesting articles in Mr. Webster's invaluable History of Epidemics, do not support most of my chief positions?

I do not know that my readers will at first clearly perceive what the meteors, droughts, &c. there mentioned prove; but I will point out what they seem to me to demonstrate, either as I go along or afterwards; and I shall at the same time offer such other observations as shall seem demanded by my present subject. I shall begin with Mr. Webtser's history, at the year before the Christian æra, 433.

B. C. 433, 4, 5. Great heat of the earth preceded the plague Thucidydes describes. Earthquakes attended it, preceded, and followed it. Violent ones followed it for two years, and extended all over the earth. The plague too was very general; but it was worse at Athens, from the people being there crowded up in hot weather, and desponding. Rome had had a plague a year or two before; but it was subject to plagues, owing, no doubt, to the

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marshes and mephitic caverns near it, and to the cause of the many earthquakes which happened near it.

After the Christian Æra, 165, 6, 7; and more or less till 173, 5, 8, and afterwards. During all this period there was an immense mortality over the face of the then known world, with many earthquakes in various places, much putrefaction and unwholsomeness in the seasons, and often famine. They happened in a great measure in the time of Marcus Aurelius and Lucius Vera; and are mentioned by the learned Dr. Arbuthnot, and a late writer (as well as myself) as destroying half the human race in the time of *Marc Anthony*; Dr. Arbuthnot led me into the error; Marcus Aurelius was called Marcus Antoninus. It is computed they destroyed more than half of the human race.

From 250, at intervals, till 263 or 266. For about seven years before this, the earth was agitated by most violent earthquakes; and about two years before, the sea rose to a most unusual height on the Eastern coast of this kingdom, and overflowing some hundred thousand acres in the county of Lincoln, all of which, at this day, have scarcely been quite recovered. Earthquakes too followed the plagues; an eruption of mount Ætna preceded, and an eruption of mount Vesuvius followed them. The plagues which prevailed in these times destroyed about half the human race. They were most fatal at Rome in 252 and 263, and in Scotland in 266. The air in some places was remarkably thick and impure, causing great darkness, and a deposition of putrescent dew.

407, 8, et seq. Prodigious meteors, violent and numerous earthquakes; heat of the earth, which destroyed vegetation, and caused extensive and severe famine. Then pestilence, which, according to Nicephorus, destroyed almost all Europe, and a considerable part of Asia and Africa.

In 445, 6, 7, 8, 9. Tremendous earthquakes for many months, over a great part of the globe. At Constantinople, in particular, very early, severe, and long, and often repeated. Dreadful plagues, not only there, but universally, and of several years duration. Very severe in England in 448 and 9.

From 543, during 50 years, the plague travelled all over the world, sometimes going progressively, sometimes making a circuit. But much worse at some times, and in some places, than in others. Procopius says, it did not spread *by contact*, and on that account people were emboldened to wait upon the sick, and bury the dead. Yet it attacked people of all ages and descriptions, and in all situations, and almost depopulated the world. It often travelled in a very

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very narrow compass, (according to Evagreus) *leaving many places untouched,* afflicting others not far off very severely. At first it passed slightly over several cities, *it attacked the half of others,* in some only a few houses, but in thers it scarcely left an inhabitant.

From this time to the year 1000, there were seven or eight general plagues, with their usual attendants, earthquakes, volcanic eruptions, unwholesome seasons, &c.

In 1000 we have the first account of the eruption of Mount Heckla. It emitted two meteors like globes of fire. These were followed by severe earthquakes in England, by a very cold winter, and in summer by fluxes, epidemics, and mortal fevers.

In 1004 an eruption of Heckla and a violent earthquake. In 1005, earthquakes in Italy for three months. Then a famine and plague over the whole earth for three years, which, according to contemporary authors, appeared to destroy more than one half of the human race. Afterwards Vesuvius poured out immense quantities of lava.

In 1174 we find the first epidemic catarrh mentioned.

In 1196, in England a universal and very fatal epidemic prevailed, called a burning ague; it came on after heavy rains, which caused a dearth, and with an earthquake and singular fiery appearances in the sky. A similar ague had been epidemic here before.

In 1274, the rot in sheep was first taken notice of in England.

In 1346, or a little earlier, a fœtid destructive vapour is said to have broken out of the earth in Cathay in China, which caused a most extensive plague. It is certain this plague appeared in 1346, in Egypt, Syria, Turkey, and Greece; and in 1347 in Sicily, Pisa, Genoa, and other parts of Italy; and in 1348 in the South of France, first at *Avignon* (which is at a distance from the sea), then in the other parts of the kingdom, and in the southern provinces of Spain. At the close of the same year it made its appearance in England, first in Dorsetshire, and soon travelled all over the kingdom. In 1349 it over-run Ireland, Holland and Scotland; and in 1350, all Germany, Hungary, and the North of Europe. It raged in winter as well as in summer, even in the North of Europe. It was preceded and attended by many unusual phenomena. In 1347 a frightful comet appeared. During the prevalence of the disease the whole earth was shaken by most tremendous earthquakes. All Germany was shaken in 1346. In 1349 Italy was shaken, and Sicily to its foundation. In Greece many cities were overthrown. Over Avignon in France, a pillar of fire

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wa seen for an hour; bnt the seasons after were very moist. It was very fatal in Greenland and Iceland; also at Avignon, Montpellier, and Marseilles, especially among the monks; the Clergy in England too suffered much. A bad typhoid pneumonia is said to have prevailed epidemically with this, but it probably was no more than a modification of the other. Cattle, fowls, and even fishes were affected. Brabant and Milan escaped this pestilence, and so did several high places.

In 1354 an epidemic madness prevailed in England.

In 1361 a general plague prevailed; it was unlike almost all others, as it was as violent in country houses as in towns, and was most violent in *mountainous districts*. In 1373 an epidemic madnes reigned among the lower order of people in England. In 1374 it prevailed in France and Italy.

In 1485, the sweating plague in England seized Englishmen first and *chiefly*; but it attacked people of *all* countries, and in *most* of them. The *common* plague was epidemic in Italy and Germany *previous* to it, and Denmark *while it prevailed.*

In 1490 an epidemic leprosy, causing ulcers from head to foot, prevailed in Germany, and an epidemic elephantiasis had, long before, reigned in Italy.

In 1510, after an eruption of Mount Heckla, a catarrh spread universally through Europe.

In 1515, a malignant catarrh or pneumonia, ravaged Holland, and often killed people in a single day.

In the spring, 1517, a similar disease was epidemic in England; *and this by Midsummer became the sweating sickness.* These two are said to have destroyed half the people in England. In 1540, a pestilential ague and a dysentery were epidemic and mortal in England.

In 1557, fevers were epidemic generally. In 1558 an epidemic dysentery prevailed in France; and epidemics and semitertians in Holland.

In 1576, while an epidemic reigned (among other places) in Verona and Padua very severely, Vicenza, *which lies between them*, escaped, and was not attacked till the following year.

In 1580, a very fatal catarrh seized Sicily, and in a few months spread all over Europe.

In 1591, one of a similar kind prevailed as universally, *and was the immediate forerunner of the plague.*

The year 1600 was remarkable for a pestilence in almost every part of Europe, which continued for two or three years,

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years, and caused great mortality. Subterraneous fires, and famine, prevailed at the same time.

In 1610 there was an epidemic catarrh, which the Spaniards say was the first that visited them.

In 1618 and 1619, the yellow fever made great ravages among the American Indians. In the following years it attacked the Indians also, and the new settlers, and since then often.

From 1620 to 1660, the plague and other epidemic diseases, (with earthquakes and volcanic eruptions, &c.) were frequent and fatal all over Europe and in America. In Europe they began in Hungary, and spread *along the Danube,* and afterwards *along the Rhine.* The same continued (though with less violence, except eruptions from Mount Etna, which lasted for years) *till many years after the plague in London in* 1665 *and* 6. Of what happened in Africa and Asia we have little account. In 1663, there was in England, a memorable mortality among cattle and sheep; *the liver, and sometimes the lungs, having worms.* In 1664 many cattle died. In 1665 the plague appeared in Holland and England. In London, *pneumonia was epidemic in winter, having succeeded bad epidemic tertians. A pestilential fever raged in the spring; and the plague at Midsummer. As it subsided, the dysentery and other diseases were again epidemic.* From all this it is clear, that one great cause, operating differently, according to seasons, &c. produced all these complaints, both in cattle and in men.

In 1682, a mortal disease spread among the cattle in Italy, Switzerland, and Germany, called Angina Maligna. Cattle died of it in twenty-four hours. In Germany and Poland it often travelled very slow, sometimes not more than *half a mile in an hour*: so that it often took as much time to travel *ten* miles, as the epidemic influenza which attacks the human species does to go *one hundred* or many more. The slowness of its progress shews either that the cause of it was heavy and confined near the ground, when the current of air could affect it but little; or that the air was calm, *or both*; which last is most probable, as it is not certain that it arose altogether from the ground.

On the 10th of January, 1693, a most terrible earthquake shook Sicily and Naples. The sky from serene became obscured with a vapour of a *reddish or yellow hue.* Malignant fevers, small-pox, madness, dullness, sottishness, and melancholy with delirium and lethargy immediately followed. Another earthquake happened a little before this; and another occurred in 1693, in Banda, in

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the Indian Sea; and after both, *a sulphureous smell* was perceived. In 1695, *apoplexy was epidemic in Italy.*

From 1702 to 1711, the plague prevailed in many parts of the north of Europe, after, and partly at the same time with the plague in the Levant, and the bilious fever, &c. in America. Earthquakes and volcanic eruptions occurred as usual on such occasions. In 1711 also, a very fatal disease raged among the cattle in Italy.

In March, 1719, an immense meteor passed the heavens, illuminating the earth, and bursting with a tremendous report; its diameter was calculated by Dr. Halley at a mile and a half. In Europe, malignant fevers were prevalent, and the mortality great. In 1718, 19, 20, and 21, fatal fevers took off numbers who lived near the slaughter-houses in Cork. In 1719, 20, and 21, the plague prevailed at *Aleppo*, and *(contrary to what is usual)* came from the north. In 1720 and 21, the plague was very destructive at *Marseilles and other places in France.* Earthquakes and volcanic eruptions during this period, and about it, *were frequent.* In 1723, in some districts in America, the burning ague was fatal, but was partly owing to a local cause, viz. *draining swamps.*

In 1729 and 30, *a catarrh marched all over Europe in five months*,—much too short a time to allow it to do so by contagion.

In 1733, a catarrh spread all over Europe, and probably nearly all over the earth. In 1734 and 1735, many diseases were epidemic in Britain, and earthquakes were felt there. In 1736 and 7, an ulcerous sore throat and a malignant pneumonia were epidemic in France. And at the same time a very malignant sore throat travelled in America from East to West. Cold and wet weather greatly increased it. The plague too, about the same time, was very fatal in Egypt. In short, epidemics were remarkable; and earthquakes, volcanic eruptions, and meteors equally so. In 1738, *in England, vertigoes, apoplexies, and sudden deaths were very common.* Oczackow also, Barbadoes, and New Spain had the plague. From 1740 to 1744, pestilential diseases prevailed throughout all the known world. The European catarrh of this period spread over England *in a few weeks*; it came from the South. Earthquakes, volcanic eruptions, and meteors were frequent.

From 1759 to 1762, the plague was very fatal in several places of Europe, Asia, Africa, and America; prevailing with earthquakes, volcanic eruptions, &c. as before. After it declined, dysenteries, and sometimes pleurisies were epidemic in several places for some years. In 1771 and 2, after

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after great earthquakes, &c. there was a plague at Constantinople, and in Poland, Russia, and other places.

In June 1783, an eruption began from Mount Heckla, and it continued with violence for several months: it was *preceded by a drying-up of the springs, and a great fog over Iceland for many months*; which, at last, spread over *Europe*, and gave great alarm: and not without cause, for the influenza *soon followed; and then other diseases and earthquakes in various parts.* The Nile at this time did not overflow as usual; and the plague was very mortal in Egypt.

At the end of the year 1787, eruptions happened from the mountains Etna and Vesuvius: and early in the year 1788, the influenza broke out in Sicily, Italy, and Germany; and soon reached Poland, Russia, Britain, and France. There was great mortality in the East of Europe.

In the next year *crops failed over the whole Earth*; and in July there was a *tremendous earthquake*, which was principally felt in Iceland. Then *almost all the haddocks in the North Sea died.* In October, *Mount Vesuvius was in a state of eruption* for several weeks. In America there was great *darkness* in Kentucky. The influenza appeared soon after, and then the scarlet fever.

1791, 2, and 3, were pestilential years in many places, preceded by earthquakes, and followed by a great eruption of Mount Vesuvius.

In 1796, several parts of America were sickly; and early in the year following, earthquakes and volcanic eruptions were very tremendous in South America. Soon after, a great mortality was observed *among fish and cats.* Then, in summer, the bilious plague began, and continued in autumn. After that, dysenteries, the influenza, pneumonia, and scarlet fever prevailed, and continued during winter. In 1798, the bilious plague was very general in America early in autumn, or after great rains, and with extremely sultry weather; and an earthquake of considerable extent followed it. But I have not convenient room here to do Mr. Webster full justice. He has mentioned many other important circumstances; and particularly, that the following phænomena were usually joined (some or more of them) with epidemic sickness, as well as earthquakes, meteors, and volcanic eruptions; viz. comets, heat of the earth and dryness; drying-up of the springs; failure of crops; famine; very unusual seasons in other ways, sometimes very moist or wet; thick fogs or darkness for days or weeks; fœtid clouds or dews; much putrefac-

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tion; the generation of many insects; great armies of locusts; the death of cattle, sheep, or cats, &c.; the flight of birds; great sickness and mortality among fish; *looming, &c. in the air*; great swelling of the sea, &c.; and many of these circumstances I find noticed by other authors, more than by Mr. Webster. I shall beg leave to examine how these concomitant circumstances are connected in my next.

I am, &c.

THOMAS ALDER.

(To be Continued.)

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Did hope that some more able pen would ere now have been employed in marking what I consider the inconsistencies and erroneous notions in some of Dr. Roberton's late papers, which, though trifling perhaps in themselves, are remarkable in coming from one of his assumed acumen, and who is so often adverting, with no little severity, to the faults, or supposed inaccuracies and misapprehensions of others. I shall confine myself in these remarks more particularly to his paper on hydrocephalus, which appeared in one of your late Numbers. He is pleased there, very erroneously I hope, to call this the disease of children, "now," as he gravely asserts, "that the small-pox has been driven out of this Country."—The small-pox driven out of this Country!—Here we have one of those loose and sweeping assertions, so frequently occurring in the Doctor's papers. Again, "that as many, if not more, die of it than even died of the small-pox," is another of his bold assertions, which every practitioner will know how to appreciate.

Doctor R. entitles his paper "Original Remarks on the Pathological Theory and Practical Treatment of Hydrocephalus Internus, illustrated by cases, &c." So conspicuous a title was well calculated to catch the attention of your readers, and I confess I was one of those who entered upon it with great pleasure, hoping that it might lead to a surer discrimination and more successful practice in that too often fatal malady. But seldom, surely, was attention more

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more ill bestowed, or expectation more severely disappointed. For after passing through an introduction, to me at least most truly unimportant, we are led on to a detail of cases, which, generally speaking, are clearly referable to another source of disease; and instead of being illustrative of the disease in question, are calculated only to confound it with other infantile ailments.

According to the "Pathological Theory" of Dr. Roberton, we are, on every occurrence of fever in children, with apparent head-ach, torpid bowels, or dark coloured stools, to act under the idea of the presence of hydrocephalus; and without further consideration, doom the little sufferer to a severity of treatment which its case, perhaps, by no means required. For how often do we meet with cases, such as he has described to us, giving way to active purgation alone? From whence we conclude, that the head, if at all, was not primarily affected; and that the "cap blister" might oftentimes have been well dispensed with. The doctor in his remarks, proves to us, that it is an easy matter to make a confident assertion; but to be able to discern and to paint to the view of others, "the distinctive physiognomy of diseases, the sort of shade between sameness and difference in symptoms," is another consideration, which he does not care seemingly to involve himself with. "He considers all the diseases of children to be hydrocephalus," as Dr. Fogo has well observed.

Dr. Roberton, as if to complete his subject, goes on with it in the two succeeding Journals, in his "Reports of the Diseases of Edinburgh." At length, he thinks he has said enough, and then sums up by asserting that he has given us "a new view of this disease, and a very effectual mode of subduing it." Surely Dr. Roberton cannot be dealing seriously with us. As to his new view, we have already examined it, and his effectual mode of subduing this disease, when it really exists, unfortunately consists only in that sort of treatment which has disappointed many an anxious practitioner before him. To conclude. We cannot suppose Dr. Roberton ignorant of the best Treatises which we have on this malady; and yet, with these in his recollection, it is hard to think what could induce him to publish his "Original Remarks;" or on what ground he could hazard so confident a proposition as that just quoted. Does he court a comparison with any of the best writers who have preceded him on this subject? His fame we think would be no ways enhanced by bringing before him the Essay of the learned Dr. Whytt, published on this subject

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subject more than half a century ago; the stile and manner of which is well worthy of imitation.

The appearance of your last Number induces me to make one further observation. Dr. Roberton, I hope, before this paper meets his notice, will have read the excellent "remarks on the infantile fever," by Junius, in this number; and if he then persists in thinking that his own cases characterise hydrocephalus, we would recommend to him the reconsideration of the last sentence in his "Reports of the diseases in Edinburgh, for December 180;," where he speaks of "mulish stubbornness," and "Scotish obstinacy." With what justice the Doctor applies these coarse epithets to his Countrymen, we will leave to the consideration of those who are better able to determine. True it is, that in himself, we have not that full manifestation of mental pliancy which might have been expected in one so suddenly sprung up from "the hot-bed of genius." But the "soil," we fancy, wants ameliorating, it being at present, as he tells us, "much calculated for the production of obstinacy." It may be so; but we have no proof of it in the writings or acknowledged conduct of those, who first and most adorned the great "Medical School" of Edinburgh; in the bosom of which, probably, the Doctor was nurtured; but he failed to imbibe, seemingly, that spirit of meekness, which the introduction to, and pursuance of our profession is so well calculated to inspire.

Observations on Mr. Davies's *Paper, on Uterine Hæmorrhage.*

The "cautionary hints," or rather practical dogmas, of your respectable correspondent Mr. Davies, on uterine hæmorrhage, are better calculated, in my opinion, to give strength and interest to the minds of the experienced, than "to prove useful," as he hopes they may, "to the junior practitioners in midwifery." The minds of young men are not to be formed, nor can their rules of practice be taken from such confined limits as Mr. Davies has assumed to himself in his paper. He did not, I dare say, think that his "Observations" should at all supersede more enlarged reading; but recommended as they are to the notice of the junior practitioners in particular, they inculcate, I think, a position or two of a dangerous tendency. To illustrate. "In other cases of difficulty," says Mr. Davies, "the practitioner has leisure to deliberate on the best mode of relieving his patient, without risking any conse-

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consequences." As if to proceed hastily and indeliberately in this instance, were not risking the most serious consequences. I should advise the young practitioner, even in these cases, not to decide too hastily, or be afraid of deliberating on the best mode of relieving his patient. Let him, if he has an opportunity, call a consultation, rather than hazard his reputation in a too early attempt to deliver, which it is allowed, "in some cases will be attended with manifest discouragement." Let him not be persuaded to admit it as a general unqualified rule, that, "the sooner an attempt is made to deliver, the greater probability there will be of saving his patient." Cases, no doubt, do and will occur, where "the violence of the symptoms demand immediate help," where delivery must be proceeded in without waiting for pains, or for any considerable dilatation of the os uteri. It is hardly possible for the most able to lay down rules that will adapt themselves to every variety of case that may fall out in practice. It may be argued on the one hand, that "delays are dangerous," and on the other, that "proper delays will be advantageous."

But, after all, every thing must depend upon the individual view of the attending practitioner; though, it is a good general maxim, "to take as much time as symptoms will permit." A strict examination as to the attachment of the placenta, and a mind well stored with the facts and observations contained in Dr. Rigby's excellent pamphlet on "Uterine Hæmorrhage," will best serve a young man in these anxious cases.

As to the "deplorable case" to which Mr. Davies alludes, I know nothing; and with that gentleman, most sincerely do I hope I never may. It seems, however, that such cases have occurred in practice, and are acknowledged by the "best authorities," and it is well therefore that practitioners should be apprized of the chance of meeting with them.

Is it a fact, as we have long been accustomed to consider it, that in cases of placenta presentation, the hæmorrhage uniformly increases in proportion to the dilatation of the os uteri, and that nothing consequently is so much to be dreaded as the natural progress of the labour? If so, whence is it, that we hear of cases of hæmorrhage from the same presentation proving suddenly fatal, before the os uteri shews any disposition to dilate, or while it is "incapable of any dilatation whatever?"

I am, &c.

Duffield, Feb. 15, 1810. SAMUEL SPENCER.

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GALVANISM.

Extract from a Memoir presented to the Class of Mathematical and Physical Sciences of the National Institute of France. By M. M. GAY LUSSAC and M. THENARD.

(From the Journal de Physique.)

M. M. GAY LUSSAC and THENARD, having proceeded to the decomposition of the boracic acid by the metal *potassium*, attempted in like manner the decomposition of the fluoric and muriatic acids, with the constituent principles of which we were as yet unacquainted. What was done with respect to the fluoric acid, and the principal results to which they have conducted us, as at present published by these philosophers, are here recorded.

Our first attention, say they, was to obtain the fluoric acid in a state of purity; but as this acid does not exist but in a state of combination with lime, and that we have hitherto been unable to separate the two, without their entering into combination with other bodies, we have been under the necessity of making a considerable number of experiments, which has given the opportunity of ascertaining many facts, the most remarkable of which are as follow. When we brought potassium into contact with the fluoric acid gas, which becomes disengaged in an iron tube made red hot, containing fluate of lime and vitreous boracic acid, there thence result vapours of considerable density, similar to those formed from the combination of muriatic acid gas and ammoniagal gas. It yields them equally with every other gas, excepting with the muriatic acid gas, provided these have not been freed from moisture. But it alters the transparency of none else of them after they have been for some time in contact, whether it be with lime or with muriate of lime.

In the first case, when there is a production of dense vapours, the volume of the gas diminishes equally, and only a few hundredths of the centigrade thermometer. In the second case, when the gases preserve their transparency, their volume is by no means changed. We therefore conclude from hence, that the fluoric acid gas is an excellent test of the presence of moisture, or an hygrometric test in gases, and that all gases contain moisture, except the muriatic acid gas, the fluoric acid gas, and perhaps ammoniacal gas. It is hence, that in exposing the

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the muriatic and fluoric acid gases to a degree of cold of 15° or 19°, nothing is deposited, excepting a few traces of liquid; whilst on exposing the sulphureous acid gas, carbonic acid gas, &c. at the same degree of cold, it suddenly deposits the same quantity of aqueous moisture.

The dense vapours produced by the fluoric acid, in gases which contain water sensible to the hygrometer, betray, with respect to it, a great affinity for such water, so that it would not be exaggerating too much to say, that it would absorb more muriatic acid, and probably more than 2000 times its volume. When water is thus saturated, it is limpid, fuming, and more caustic. We obtain from it, by means of heat, more than one-fifth part of what it contains, and whatever methods are afterwards taken, it is not possible to obtain a greater proportion. It therefore resembles the concentrated sulphuric acid, and has both its causticity and aspect; like that, it does not enter into a state of ebullition, except at a much higher temperature than that of boiling water, and it is entirely condensed in *striæ*, although it may probably contain 600 times its volume of gas. Is it not extremely probable after this, if not even demonstrated, that the sulphuric and nitric acids should be gaseous if pure, and that they do not owe the liquid state in which they appear to any thing but to the water which they contain?

Although our fluoric acid gas has a great affinity for water, and that it contains none of it because it is derived from substances perfectly free from moisture, nevertheless, we neither know how to dissolve, nor how to render gaseous the minutest portion. We have put into contact for many hours over mercury, a litre of fluoric acid gas with one drop of water, and this drop, far from disappearing, augmented in volume. It is thus therefore proved, that this gas could contain water in no other way, neither as sensible to the hygrometer, nor in a state of combination.

Ammoniacal gas is precisely in the same situation, at least with respect to the water of combination. But this is by no means the same with respect to the muriatic acid gas; in truth, it contains no water sensible to the hygrometer, but it contains water in a state of intimate union, as was first shown by M. M. Henry and Berthollett. We have even obtained, by causing muriatic acid gas at a gentle heat to pass over litharge fused, and reduced to a gross powder, this water, and caused it to collect, which formed about one-fourth of its weight, according to the experiments

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periments which we have made upon the direct combination of a certain quantity of this acid gas with an excess of the oxyde of silver.

The other gases do by no means exhibit with water the same appearance as the preceding. None of them contain water in a state of combination, but all contain it, as indicated by the hygrometer. It follows then, from hence, that the fluoric and ammoniacal gasses neither contain water in a state sensible to the hygrometer, nor in a state of combination;* that the muriatic acid gas does not contain water, either in a state sensible to the hygrometer, or in a state of combination, and that all the other gasses simply contain water in a state sensible to the hygrometer.

What is more striking in these results is, to see that the muriatic gas contains water, and that the fluoric and ammoniacal gasses contain none whatever, and besides, to observe that the muriatic acid gas contains it in such proportion, that if it were entirely decomposed by a metal, all the acid would be absorbed by the oxyde, and become converted into a metallic muriate; it is the same, we may be assured, on passing the muriatic acid gradually, and in succession, through several gun-barrels made red-hot, and filled with iron turnings.

The more we reflect upon these phenomena, the more difficult it seems to be to account for them. Is it not possible that if oxygen and hydrogen be two constituents of the muriatic acid, that they may not be so in the form of water, but that they merely form it at the moment when this acid enters into combination with other bodies, so that in the muriates it would be in any other state than that of gas? However this be, one thing is certain, that all the muriates not decomposable by fire, and which contain little or no water, cannot be decomposed even at a very high temperature, either by the vitreous phosphate of lime, or the boracic acid, so that with respect to the muriates, their acid remains united with considerable force; and that if the sulphuric acid was itself deprived of water, it is more than probable that it could not itself decompose them. But let us not dwell too long on this hypothesis,

* It is certain, according to the experiments of Berthollet, jun. that ammoniacal gas does not contain water in a state of combination; but Gay Lussac and Thenard do not venture to assure us that it is not contained in a state perceptible by the hydrometer.

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pothesis, but proceed to enquire into the properties of fluoric acid gas. We have already considered its physical properties, its action upon air, and upon the other gases as well as water; let us now enquire into its action upon vegetables, which it acts upon with at least as great a force as the sulphuric acid, and appears like this acid to act upon them, in consequence of producing water and carbon; it also readily converts alcohol into good æther, a circumstance which we purpose more particularly to attend to, and it immediately blackens very dry paper exposed to its vapours, in consequence of the water formed and absorbed.

Every thing therefore proves that this fluoric acid gas is a perfect acid, not yielding in energy to any other with which we are acquainted, and that even in point of causticity it is equal to the concentrated sulphuric acid itself; and still it has no action upon glass. Until now we had considered it as being pure, but conceiving that it contained some substance which prevented its re-action upon silex, it readily occurred to us, that it held in solution a considerable portion of the boracic acid.

The fluoric acid obtained from the decomposition of fluate of lime by the boracic acid not being pure, we have attempted its decomposition by the acid phosphate of lime; we have been able only to obtain a small quantity, and the little which we have obtained, contained in the first place a small quantity of silex derived from the fluate of lime we employed, and in the last place a certain quantity of acid phosphate of lime itself. What is remarkable in this operation is, that when we employ siliceous fluate of lime, the decomposition of the salt is very rapid, in consequence of the action of the silex upon the fluoric acid, whence proceeds a considerable quantity of silicated fluoric acid gas.

Considering then that the fluoric gas proceeding from the fluate of lime and boracic acid contains no water, and that it is not capable of holding it in solution, we have conceived, against common opinion, that it is actually the case with such as is prepared in leaden vessels, by means of the concentrated sulphuric acid.

But instead of attaining, after this manner, this acid in a state of gas, we have obtained it in a liquid state, and possessed of the following properties. It exhales through the air a thick vapour, and in contact with water becomes hot, and even proceeds to the point of ebullition; it scarcely comes into contact with the glass but it erodes it; becomes

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becomes considerably heated, and finally, becomes converted to a silicated gas. Of all its properties, that of its action on the skin is the most remarkable. It scarcely comes into contact with it, before the organization is destroyed. A white speck is immediately perceived, and a considerable degree of pain succeeds. The parts adjacent to the point touched, speedily become white, and very painful, and in no long time after, a blister is formed, the sides of which have a white skin, very broad, and filled with pus.

How small soever be the quantity of acid, these phænomena equally occur; the developement of it is slowly made, and it is sometimes from seven to eight hours after it comes in contact, that it becomes observable; and although the burn be sufficient to produce considerable pain, to deprive one of sleep, and even excite fever; the effects of these kinds of burns are arrested, as we know by our own experience, by immediately applying after the accident, a weak solution of caustic potash, which we also know to be an excellent remedy for common burns.

We readily foresee that we are not to neglect to bring so active a liquid into contact with the metal obtained from potash. This experiment was performed in a tube of copper; we introduced a piece about the size of a hazel nut, of this metal, into a small quantity of the liquid potash, when a lively detonation instantly followed with considerable disengagement of light and heat.

When the metal potassium is thrown into liquid fluoric acid in a concentrated state, there is instantly disengaged a considerable portion of light and caloric, attended by the most vivid detonation; but afterwards, wishing to ascertain the cause of this phænomenon, the acid was gently poured over the metal, when heat was simply elicited, and the products of the experiment collected; those products were hydrogen fluate of potash and water, therefore the active liquid was a combination of water and fluoric acid.

We perceive therefore, that this acid has a tendency to combine with all bodies, and that it forms with them solid liquid or gaseous compounds, in proportion as it preserves its elasticity or expansive force; it is the only acid which has this property; and this circumstance alone is a proof that it is of all others the most active.

As we have no method of obtaining the fluoric acid pure, we cannot study it but in a state of combination with other bodies, only it is necessary to have it combined with

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with a particular body, according as we wish to obtain one result or another.

If it act by uniting with alcalies earthy metallic oxyds, it is necessary to prevent them from being acted upon by the silicated fluoric acid, or there would result tripple salts; it is thus, that in pouring ammoniac into the acid fluid of silex, we obtain a tripple salt, nearly insoluble, and in a considerable degree volatile; in like manner, by pouring the muriate of barytes into the acid fluate of silex, we obtain, after a short time, a crystaline insoluble precipitate in a considerable excess of nitric acid, which we may compound with the sulphate of barytes, and which is merely the fluate of silex and barytes.

But if instead of wishing to combine the fluoric acid with bodies, we would decompose its compounds by means of the metal potassium; it is then obvious, that we should not employ the fluoric acid in a liquid state, because the water contained in it, and which they would prefer, whether it be the fluoric gas holding in solution boracic acid, or rather the silicated fluoric gas, as the latter contains nothing combustible, it cannot lead us into an error, and cannot be prejudicial, except in consequence of the dispersion of the materials; thus it is, with respect to this gas, and especially with regard to the silicated fluoric acid gas, of which we have made use in our attempts to decompose the fluoric acid itself, and of which we proceed to give an account.

When we bring into contact at an ordinary temperature, the metal of potash with the silicated fluoric acid gas, it undergoes no sensible alteration, but simply becomes tarnished at its surface; but if we cause it to melt, it burns vividly, with intense light and heat; during this combustion there is a considerable absorption of fluoric acid, and a very slight disengagement of hydrogen gas, together with the production of a solid matter, the colour of which is a reddish brown. This matter, when treated with cold water, causes a disengagement of hydrogen gas, which does not however contain any portion of metal. If this matter be treated with cold water, and afterwards with warm hydrogen, it is disengaged in a much smaller quantity than in the former instance; and upon the whole, there is scarcely disengaged the third part of what was produced from the metal combined with water. If we connect the waters of ablution, and evaporate them, we shall obtain the fluate of potash with excess of alkali; and if we examine the residual after being well washed

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it is always of a reddish brown, and we find it possessed of the following properties: when thrown into a crucible of silver, and heated to a cherry red, it burns with great vividness, and the disengagement of a minute portion of acid gas; although previously insoluble in water, it now becomes soluble; the part which dissolves it is the fluate of potash, and what remains insoluble is the fluate of potash and silex. If, instead of making this experiment in a crucible, it be made in a small bell glass, in contact with oxygen gas, so as to become gradually heated, the ascension is much more vivid than when in contact with the atmospheric air; there is an absorption of a great quantity of oxygen, and the remaining gas, after combustion, is pure oxygen, with a small portion of fluoric acid gas; the product is solid, as in the preceding experiment, being formed of fluoric acid, lime, and silex.

It is evident, however, that during the combustion of potassium in fluoric acid gas, there is little or no hydrogen disengaged; we cannot attribute this combustion to the water, so that in this experiment, either the fluoric acid is decomposed, or at least, combined with the metal without oxydating it. These two hypotheses being the only ones we are able to advance, we shall discuss them in succession. If it were the metal which combined entirely with the fluoric acid, there would probably result from it a very immaliable compound, and which, with the acid of water, would yield as much hydrogen gas as the metal itself; whereas, we did not obtain more than one-third part of what we should in this case have done; therefore a combination of this kind militates against all the facts of every possible hypothesis, whether we consider the action of the fluoric acid upon metals and alkalies, or whether we consider the action of the metal potassium upon all the other acids; from hence, therefore, we conclude it to be probable, that the fluoric acid is itself decomposed. It should in consequence form, in this decomposition, a combination of the radical fluoric acid with the potash and silex. It appears, that when this radical is only combined with potash, it can decompose water like the phosphorets; but when it is combined with potash and silex, it is not at all decomposed; doubtless, in consequence of its being a tripple salt, in such state of combination as to be insoluble.

However this may be, it is extremely easy to insure the combustion of the metal of potash with the fluoric acid gas.

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The combustion being completed, and the vessel cooled, we withdraw, and detach the matter with a small spatula. This being effected, we can burn another quantity of the metal in this small capsule and glass, provided we cause to pass into it, the quantity of fluoric acid which had been absorbed in the preceding operation of combustion. We may in like manner make a third and fourth combustion; nothing prevents us, as we can always refill the glass to the same altitude with the fluoric acid gas, and can readily, at our pleasure, obtain the metal, by strictly attending to the process which we have laid down. We should however, add, with respect to this kind of experiment, to succeed compleatly, it is proper to absorb the unctuous matter floating on the surface of the metal by blotting paper, otherwise, it will spontaneously decompose, and yield a small proportion of hydrogen and carbon. In truth, it is with difficulty we can avoid this inconvenience; and whatever pains are taken, we shall always find a small portion of oil interposed between the metallic molecules, but its quantity is so small that it may be overlooked, and still no error be observable in the results. It is upon this oil that the property of the metals of potash and soda depend, of rendering lime water turbid.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

MR. WARDROP, in his excellent work on Fungus Hæmatodes, having observed, that the disease so named, "will probably be seldom met with in the ovarium," I am induced to send you for insertion in the Medical Journal, an account of a dissection, which may perhaps be thought a case of that sort. I have added another account of the appearances on dissection of diseased uterus, which, if you think sufficiently interesting, I will beg you to insert also.

Miss W——, æt. 47, had symptoms of diseased uterus for three years.

On opening the abdomen, the diseased mass was found to occupy almost the whole cavity. The liver and stomach were pressed up against the diaphragm, and the former much lessened in bulk; the uterus was considerably enlarg-

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ed, and on its upper surface, two tumours were seen connected with the peritoneal coat, by a small peduncle; one the size of a large orange flattened, the other of an oblong form and smaller; when cut into, they appeared to consist of a very firm whitish substance. The ovaria were each about the size of a child's head, and converted into an uniform brown pulpy matter, with cells, containing a dark coloured fluid; a few hydatids were on its external surface. The coats of the uterus were much thickened, but not at all in a schirrous state. The cavity was filled with carnous layers and loose pieces of coagulable lymph, in a very putrid state, but no ulceration whatever; the pressure of the mass had produced a contraction of the rectum.

Mrs. B——, æt. 36, the wife of a surgeon in the neighbourhood, after suffering from symptoms of diseased uterus about three years, was seized with excruciating pains over the whole abdomen, which continued till her death, about fourteen hours after this attack.

Dissection.—On opening the abdomen, the peritoneum was found in the highest state of inflammation. The omentum adhered on the left side. In the cavity was found about a pint of serous fluid, and about eight ounces of very fœtid pus. The uterus was enlarged, but not very considerably; and at its fundus, an ulcer about the size of a shilling had opened with the abdomen. The coats of the uterus were much thickened, but there was no scirrosity. The internal surface of the ulcer was about the size of a crown piece; there was no ulceration at the cervix, as described by Dr. Adams, as the usual seat of malignant ulcer of the uterus; of which this was a decided case.

I am, &c.

W. C. HEYWOOD, M. D.

Blandford, March 7, 1810.

Observations on the Lymphatic Distension of the Lower Extremities of Women, while in the Puerperal State. By Dr. Wyer.

[Communicated to the Massachusetts Medical Society.]

WRITERS on this disease have imputed it to a variety of causes, some to taking cold, others to a rheumatic affection, and others have had recourse to a dropsical disposition, to help them out in their attempts to account for it; Mauriceau

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Mauriceau has charged it to a reflux of the lochia upon the part, and not a few authors have deemed it to be a metastasis lactea. In the cases I have met with, there has been no reason to suspect either of the above causes, the lochial discharge and lacteal secretions particularly, having in all been so perfectly in their natural state, both at the attack, and under the complaint, that I could not think there was a shadow of reason to support an opinion, that either of these had the smallest influence in producing the disease. When I inform you I have had five cases of this disorder under my care, one of them an amiable wife, whose sufferings were both lengthy and severe; and that to the whole of them I was very attentive, though I fear but of little use; and if at the same time you will please to recollect in how unsatisfactory a manner it has been hitherto described, how few have accounted for it rationally, or pointed out such methods of relief, as the anxiety and distress it generally occasions, ever lead the Faculty to wish to bestow; and that hitherto, speedy relief has seldom been obtained; these considerations, I doubt not, will so far interest your well known candour in my behalf, as, at least, to secure me from censure in having presumed to touch upon a disorder confessedly involved in obscurity, and on which, I fear, I have not been able to throw much additional light; but as the profession may be benefited in some degree by knowing what has been found useless, as well as what is useful, in particular diseases, I thought the following remarks might not be wholly without their use.

There is much reason to suppose the sex must have been occasionally subject to this disease in all ages, and in every climate; but I have concluded that it is not a very frequent complaint, from having met with only five cases in nine hundred and eighty-nine women I delivered while in business, in which was included every variety of circumstance, which I can any way conceive connected with the obstetric art. The first four cases happened at different seasons of the year, and to women whose circumstances agreed but in few particulars; they had all borne children before, one two, two of them three, and the fourth four children; one was 24, another 26, a third 27, and the fourth 36 years of age; in this lying in, which was followed with the disorder I mean to describe, the labour had been natural, and tolerable easy; in all of them the placenta was delivered within half an hour after the child; neither of them lost much blood, had bad after pains, or

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other unpleasant symptoms. The disorder made its appearance between the second and third week after delivery, at a time when they thought themselves nearly well enough to go abroad, and at a time when they had not been exposed to any error or accident whatever. They were women who had enjoyed good health previous to delivery, and were free from any constitutional complaint; they all suckled their children, had plenty of milk, and their children were very promising. Two of them complained on the fifteenth, one on the sixteenth, and the other on the nineteenth day, after getting to bed. Stiffness and pain in the upper part of the thigh, accompanied with a sense of lassitude and heaviness, pain in the back, groin, and labium pudendi, and thence downwards through the thigh, leg and foot, were the first symptoms; swelling soon followed in each of them; and in the course of two or three days the whole left limb was greatly enlarged, hard, exquisitely tender, and immoveable; a considerable degree of fever, with thirst, restlesness, and loss of appetite, attended. The pain abated in some degree in the course of the first week, but the swelling and lameness continued for near three months. The pain and swelling abated first in the upper part of the thigh where it began, and finally went off in nearly the same direction in which it had come on. They all finally recovered, and have never since had the least return of their disorder, though three of them have had children since. In these cases, which were very tedious to all concerned, I tried all the various topical applications, (blisters excepted) which I then thought could have the least tendency to relieve. Internally I used nitre, antimonials, mercurials, and bark, as symptoms appeared to require; but from the most careful attention to the effects produced by both the internal and external remedies, I am not able to say that I think any thing I did was of much service. Opiates for a time would abate the pain and procure rest; the faltering state of the powers of nature induced me to use the bark with all the patients, and I really thought the irregular remitting fever, which attended the oldest, was abated, her strength supported, and appetite mended by this medicine; but the disease in the limb was proof against both bark and opium. When they began to recover, I was as much at a loss for a cause of the change, as when they were taken down; and I believe the discovery of the one will be the best guide to the other.

In my fifth case, in which I felt myself tenderly interested

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terested both as physician and friend, the labour was in the middle of a very cold winter; it was of the natural kind, but very severe; the delivery of the placenta was attended with much pain and great flooding, the after pains were very violent, and were followed at the end of the second day with the most painful hæmorrhoids I had ever known. These however, by anodyne and emollient applications, were but of short continuance; from their abatement to the end of the eighth day, nothing further occurred worth mentioning; at this time, my patient appeared in a fair way to do well, her appetite was good, bowels regular, she rested well, had plenty of milk, and was daily gaining strength; appearances however, soon began to change; she first complained towards night on the tenth day from delivery, of a sudden sense of weariness, while sitting in an easy chair, accompanied with a sensation in perinæo extending to the middle of the glutæi muscles, like what might have been expected from sitting upon a hard unyielding seat; her pulse soon quickened, and she became very thirsty, with a bad taste in the mouth; she lay down expecting relief from changing her posture; but in this she was disappointed; the pains increased very rapidly, and every posture was alike distressing. In eight hours from the attack, the pain had extended up the inside of the pubis, and thence to the inguinal glands, which soon became greatly tumefied, and so very painful and tender, as to be incapable of bearing the lightest pressure of the bed-clothes; from these glands the pain in twenty-four hours extended down through the thigh in the course of the principal lymphatics to the knee; from the knee, it still was confined to the lymphatics, and through them passed so rapidly to the toes, as to have disabled the whole limb in thirty-six hours. In this stage of the disorder, which I think might without great impropriety be denominated the inflammatory, the pulse was seldom below a hundred and twenty, and very hard; the whole surface of the body was hot and dry; the heat of the limb was particularly increased, but the colour was as yet unchanged; frequent discharges from the bowels now took place, and a few hours after a constant vomiting of dark coloured bile. By the use of acescent drinks and an anti-emetic mixture of succus limonum, sal absynthii, and aquæ menthæ, the stomach and bowels were quieted; and by plentiful dilution afterwards, accompanied with nitre and antimonials, the skin was opened, and a plentiful perspiration following, the heat and fever abated.

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I again examined the limb very carefully, and found neither change of colour nor increased size, but from the hip to the toes such tenderness and stiffness as rendered it wholly useless; in two days more the pain began to abate, but in its place an enlargement at the upper part of the thigh was perceivable; the swelling extended downwards by degrees till the third day from its beginning, at which time the whole thigh, leg and foot were distended in every part to three times their natural size; the limb had a tense smooth feel, did not retain the impression of the finger, was a little hotter than the other, but had the most remarkable glossy whiteness I had ever before seen in any subject. On the side of the tibialis anticus muscle, I could discover a slight blush of red, as if a straw dipped in raspberry juice had been drawn from the knee to the top of the foot; this stripe was very painful to the touch, particularly just below the middle of the muscle, where is seated a large lymphatic gland. I endeavoured to contrive an easy posture for the limb, but in this, and my expectations that keeping it parallel to the horizon would diminish the swelling, I was equally disappointed. From the size and stiffness of the limb, and weakness of the whole body induced by the preceding fever, pain, and evacuations, she was unable to sit up, or to afford herself the least assistance in bed. The vomiting returned again; and from the taste in the mouth, the colour and quantity of what was brought up, I was convinced the biliary secretion was greatly increased; the pulse again quickened, but had lost its hardness; the skin was soft and moist; her spirits were much depressed, and every power of Nature seemed to faulter; no kind of nourishment could be taken, for every thing offered, either as food or medicine, excited nausea, such things excepted as were of the ascescent kind; oranges, lemons, and cyder, alone were grateful, and I allowed them freely; at the end of two days from the last attack of vomiting, the stomach became quiet, and could bear a little sago with orange juice, and her mind was somewhat more reconciled to her fatiguing lameness; the limb still, however, retained its size and immobility.

Matters continued in this state for thirty-four days with no change of sufficient importance to deserve attention. I now found the swelling beginning to subside at the upper part of the thigh, in the inguinal glands, and by degrees downwards to the foot. That its decline was very slow may be concluded from its having scarcely fallen to its

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its natural size in three months; when the swelling was pretty well reduced, excepting in the foot, which continued much as it had been. At last it began to yield, and in ninety-seven days from the attack, motion was so far restored to the knee and ancle as to enable her to raise the limb and to place it in different postures, without assistance, but as yet it could not support the weight of the body; by degrees strength was so far restored as to enable her to hobble about the chamber, and in twelve days more she could walk in the street. Being desirous of enjoying a share of the exercise she long wanted, she was induced to walk about a quarter of a mile; upon the approach of evening she perceived the ancle beginning to swell again, the tenderness and red stripe upon the anterior surface of the leg began to appear, and great were her apprehensions of a return of the disease; but by the immediate application of a blister to the most inflamed part, it got better in a few days; and excepting some little uneasiness upon using much exercise, with a little swelling upon keeping the limb long in one posture, it appeared to be restored to its natural and healthy state.

I shall now give in one point of view, such particulars of my treatment of this tedious disorder, as appear most worthy of notice.

In the first stage of the disease the very great quantities of bile thrown upon the first passages, occasioning violent vomiting and purging, evidently required the first attention. Frequent draughts of chamomile tea to wash the stomach were first administered; and afterward an antiemetic mixture of succus limonum, sal absinthii, L. L. and aquæ menthæ abated these symptoms. Antimonial and nitrous medicines with dilution brought on perspiration, and abated the heat and great inquietude which had occurred in the first stage of the complaint. Emolient fomentations, gentle frictions, discutient liniments, saturnine washes, lubricating ointments, were all successively and frequently used to the limb during the continuance of the swelling, but I am ready to acknowledge, that neither of them appeared to be of the least service: the disease appeared determined, [as the nurse expressed it] to have its course, in opposition to the many exertions I daily made to give relief. The violence of the pain at times demanded anodynes; by their use, I was always able to give a night's rest, without any bad consequences on the following day. As cider agreed better with the stomach than any drink I proposed, I allowed it freely; it never gave

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the least uneasiness, and very evidently prevented the trouble which was constantly threatened from very large quantities of bile thrown upon the stomach. Her diet consisted of sago, gruel, and ocasionally a little light meat, with broths, &c. Clysters were frequently injected, for the double purpose of keeping the bowels open, and to serve as a fomentation for an enlargement, hardness, and tenderness felt in the vagina, which I doubt not was an over-distended lymphatic gland. As the swelling of the limb subsided, I caused cloths wet with a cold solution of sacch. saturni to be frequently applied, with a view to restore the tone of the lately overdistended fibres; and as often as the stomach would bear it, I gave the bark with elix. vitriol. allowing her to drink freely of warter highly impregnated with fixed air. Increasing appetite, less bile, and more strength, were very evidently the effects of this plan.

For the swelling and return of inflammation in the lymphatic of the leg which were brought on by walking abroad, I applied a blister upon the most inflamed part, being now convinced of the want of efficacy of all remedies hitherto employed. The relief was so sudden and lasting, that I was much inclined to think that had blisters been applied earlier in the disease to different parts of the limb, much suffering would have been prevented, and the cure much sooner completed; the evidence in favour of this opinion appeared to me so strong, that I made up my mind to try it, should I ever again be consulted in a similar case; and I would beg leave to submit it to your judgment, whether it might not be advisable to give this aplication a fair trial, in a disease, acknowledged by all who have seen it, both tedious and vexatious, and which has not as yet yielded, in a short time, to any mode of treatment which has been adopted, and for which, it is generally thought, we are not yet in the possession of an adequate remedy. Perhaps the *blister* may in future be found to be the desideratum we have long wanted.

Many reasons might be adduced in favour of this practice, but as my sole motive in writing this paper, was to lay before the Society a few plan facts, I shall leave reasoning upon them, to those who are better qualified to discuss this subject.

But that this disease depends upon an accumulation of lymph in the limb, and that this accumulation is dependent on causes peculiarly connected with the puerperal state, I think may be proved by the most incontestable arguments,

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arguments, and will, I doubt not, readily occur to every member of this Society, who will give himself the trouble to reflect on the symptoms, the rise, progress, and termination of this very tedious disease.

I can but lament that it has been so little in my power to throw more light on the curative indications and the best method of answering them, than I have done.

If any thing I have said, should be found to have placed the disease in the least useful point of view, to excite the attention of more judicious practitioners to endeavour to investigate its cause, nature and cure, or to support the spirits of those who are either subjects or spectators of it, it will afford me great pleasure. Some consolation arises from the considerations that this disease has seldom been known to prove fatal; and that although as yet, it cannot be immediately relieved by art, nature generally struggles through the trying conflict, and has so far as either my reading or observation has extended, generally come off completely victorious.

Experiments upon the Effects of high Degrees of Heat upon the Animal Economy. By F. E. Delaroche.

(Journal de Physique, tom. 68—1809.)

PHYSIOLOGISTS have been much engaged with a consideration of the high degrees of heat capable of being supported by man as well as what it produces upon animals. The very interesting experiments of Drs. Fordyce and Blagden leave us on this subject but little to desire. I have thought it right, however, to repeat some of these experiments, with a view to ascertain whether other individuals could support this degree of temperature equally as these naturalists. With this intention, M. Berger and myself were exposed in a stove of different degrees of heat, our bodies being naked and guarded from the heat of the furnace by a screen of silk. We calculated the temperature of the place, by means of a thermometer attached to the wall, 4½ feet from the ceiling.

Temperature of stove at beginning of the experiment, 70°
At the conclusion 72
I entered the stove at . . . . . 5h 17'
Weight of my body at the time of entering 128lb. 11oz. 3gr.
10' after coming out . . . . . 128lb. 5oz. 0gr.

I perceived

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I perceived very sensibly on entering, the impression of the warm air, but without being incommoded in the first moments. At 3^h 21′, some small drops of sweat appeared upon my brow. At 3^h 22′, the whole of my body was enveloped in an abundant perspiration. I began to experience at this time a slight weakness, and some distress during respiration, which continued to increase. I was obliged to withdraw.

Experiment II.

Temperature at the beginning of the experiment	72°
At the conclusion	70
M Berger entered at	3^h 41′
He quitted it at	3 54
Weight of his body at the commencement	51,460 grs.
At the conclusion, and after being 5′ out	51,145 grs.

He experienced, on entering, a slight degree of burning about the nostrils and nipples. The sweat which began to appear upon his forehead, at 3^h 45′, flowed two minutes afterwards, in abundance, from every part of the body. At the moment of his quitting the stove, he experienced a slight degree of weakness, and even a tendency to fall down. His pulse an instant before, beat 128 times in a minute.

Experiment III.

Temperature of the stove at the beginning of the experiment		87½°
At the end		86
M. Berger entered the stove at		4^h 32′
And departed at		39
Weight on his entering	50890 grs.	103lb. 15oz. 3grs.
Two minutes afterwards	50670 grs.	103lb. 8oz. 1½ grs.

He experienced a very considerable burning sensation about his nipples, at his nostrils; and even over the whole of his face His body was suffused by perspiration at 4^h 36′ in great abundance, When he came out, he was weak, and much indisposed. A moment before, he could not count the frequency of his pulse. Three quarters of an hour after he came out, he was restored to his natural state.

These experiments perfectly well accord with those which are recorded by Dr. Blagden, inasmuch as that man can for a short time maintain a degree of temperature very considerably above the ordinary temperature of the medium

um in which he lives; but they also prove that there is a great difference between different individuals, relatively to the extent of this faculty. In all of these experiments, M. Berger supported the experiments much better than myself, as may be perceived by a comparison of the experiments. If on the other hand, these be compared with the experiments of the English physicians, we shall perceive that these gentlemen, or at least *Dr. Blagden*, suffered much less than *M. Berger* and myself. In fact, Dr. Blagden did in one experiment, bear for eight minutes, a temperature which was between 240° and 250° Fahrenheit, (92⅔ and 102⅔° Reaumur,) and was not afterwards at all the worse for it; and that M. Berger was scarcely in the stove the space of seven minutes, at the temperature of 87° Reaumur. On another trial, Dr. Blagden supported a degree of heat during 12′ of 222° Fahrenreit, (83⅓ Reaumur,) without experiencing any inconvenience beyond fatigue.

The author has made a great number of experiments upon the degrees of heat which animals and man can support in warm baths and in vapour baths; on the effect which is exercised by heat upon respiration; upon the relation which exists between evaporation and the matter of transpiration, and the faculty possessed by animals of producing cold; on the influence which heat exerts upon respiration; and upon the state of the body in animals which have died in consequence of excess of heat.

He concludes his researches by the following observations.

Such are the researches which I have made to ascertain the effects which are produced by a high degree of heat upon man and animals. I could wish to give them more publicity, and to render them more complete, but the time which this labour would cost, and the difficulty of the subject itself, have not permitted me to accomplish this. Although I cannot deduce general consequences, I proceed, notwithstanding, to recapitulate, in a few words, the results which they have furnished to me.

1. Their first experiments have in view to determine what is the degree of heat necessary, to cause animals to perish. They have shewn me that exposure to a temperature of 50°, and even of 45° Reaumur, were sufficient to cause death in animals of small size. It is even probable, that a less intense heat, but the action of which is longer continued, may produce this effect.

2. M. *Berger* and myself, have stated by experiments, made

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made upon ourselves, the power man possesses of supporting, though, in truth, but for a very short space of time, exposure to high temperatures. The comparison of these experiments, whether with each other, or with those of Dr. Blagden, has demonstrated that there may be a great difference between different individuals relatively to the extent of this faculty.

3. Those experiments wherein we were exposed to the action of aqueous vapours, have proved to us the truth of the assertion of Dr. *Fordyce*, viz. that the impression of an air charged with vapours, is at an equal degree of temperature, much more intolerable than dry air.

4. We have been anxious precisely to estimate, by the help of the balance, the effects of heat upon the transpiration. The loss of weight which we experience by this means, appears to be in a direct proportion of the elevation of temperature to which we have been exposed. We have also ascertained that the heat of the aqueous vapour, excited exudation with much more energy than a dry heat.

5. I believe that I have demonstrated that the faculty, enjoyed by man and animals, of maintaining an equable temperature, although exposed to a high degree of heat, is much less extensive than is generally believed, according to the experiments of M. M. *Blagden* and *Fordyce*; and that it is in no wise comparable to the faculty, which they have of resisting cold, in maintaining a temperature above that of the ambient medium.

6. Although this faculty should be restrained, it would nevertheless exist. It is then interesting to ascertain the cause. Does it merely render in the refrigeration, produced by evaporation, as some physiologists think? I am not in a condition to answer whether the same thing takes place with respect to cold blooded animals. I can merely state, that inanimate bodies, the inner surface of which is moist and susceptible of evaporation, would acquire a less elevated temperature, when exposed to a high degree of heat, than cold blooded animals placed under the same circumstances.

7. I have also endeavoured to determine what is the influence of heat upon the phænomena of respiration. Dr. *Crawford*, who occupied himself much upon this subject, believed that the deterioration of the air, by the respiration of animals, was by so much the less as the heat to which they were exposed was greater. In sufficiently numerous experiments, made by myself, I have not perceived any

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any fixed proportion between the degree of deterioration in which animals have been confined, and that of the temperature to which they have been exposed.

8. I, lastly, examined the circumstances which accompanied death, occasioned by exposure to heat; for I in particular, examined the state of the body of animals who died in this manner. The phænomena which anatomical inspection has presented, among which, the most remarkable, is the dim motion of muscular irritability, have not been sufficiently constant to permit me to draw any conclusion as to the cause of this death.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE more frequent opportunities I have of witnessing the diseases of the generative system, the more I am inclined to believe that it may be difficult to specify the extent of their ravages on any individual or class of organs belonging to the human body. The following case is not the only one, in both sexes, which I could adduce in proof of their widely devastating effects.

An unmarried gentleman, aged 30, was addicted to private indiscretion at a very early period, but being ignorant of the bad consequences of such practices, he continued this habit to excess for a considerable length of time. The first bad effects of these practices, which he did not then attribute to that cause, was frequent giddiness, attended with a sensation as if the earth, as he expressed himself, was sinking under him. Still, however, he did not refrain from his bad habits, and of course these symptoms gained ground. To these symptoms were added others; he became perpetually apprehensive and alarmed, he knew not for what, on the most trifling occasions; was almost constantly troubled with violent palpitation of his heart, with stinging or shooting pains across his chest; and on such occasions he experienced flushing of the face, and a most disagreeable heat all over his body, particularly in the palms of his hands and soles of his feet. His testes were lower than usual, particularly the left, and the spermatic chord was somewhat enlarged and very painful. His

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His mind now seemed to partake of the general disorder; he became awkward and stupid to a great degree; all his mental faculties suffered considerably, especially his memory, which, unless on some particular subjects, and those of the very simplest nature, almost entirely left him. He laboured under a continual fright, that at some period at no great distance, he would altogether lose his reason. What rendered his situation particularly distressing was, his being perfectly sensible of all his distresses, and of his mental deprivations as now related. He at length became alarmed for his safety, and was in continual fear that he would expire suddenly while in bed. It was not till this period, which was his 22d year, that he was resolved to lay aside all these bad practices, which he now concluded must have given origin to his present state. Soon after this, he first had connection with a female. He was now sensible of a great improvement in his health, the palpitation of his heart ceased, and he became somewhat cheerful in company; but still his mind was weak, unsettled, and so easily agitated, that it alone threw a damp on all the pleasures of life.

From his 22d till he arrived at his 26th year, he occasionnally used cold bathing, which he thought yielded him momentary relief, but produced no permanent good effect on his health. He at length, however, found that he had no inclination for sexual intercourse, nor were his powers in that way so vigorous as they had been for some time before. He now tried the effect of nourishing diet, and regularly used mineral waters for two seasons, which he thought of advantage to him.

About his 29th year he was greatly improved in his general health; his mind was at times cheerful, and even happy, more so than it had been from the age of fourteen or fifteen. In short, in respect to his feelings, he was quite a new creature.

One morning, about this period, while in bed, he had recourse, the first time for five or six years, to his old habit. He was immediately seized with a degree of stupidity and a kind of derangement, different and more distressing than he had ever before felt; a profuse sweat too instantly covered his whole body, so as to render his linnen quite wet. He declared he never was in such a state of complete misery, and he earnestly wished that every moment might terminate his existence. He suffered a sort of delirium, yet was sensible of his state; he leaped out of bed and bathed his face in cold water, but this only seemed

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seemed if possible to increase his sufferings; he put on his clothes and stalked about the house like a person in despair; he drank several glasses of wine, then of ardent spirits, but they had no effect upon him. After this he went back to bed to endeavour to procure some sleep, and the spirits he had used assisting him, he slept about two hours. He was now somewhat refreshed, but still his mind was very much and strongly confused; he felt as if afraid of entirely losing his reasoning faculties: indeed, he assured me, that language could not convey his feelings at that time, and for nearly two years after, when he applied to me.

It is strange that this patient scarcely had an emission oftener than once in eight, ten, and sometimes fourteen days; yet it is evident that the effects produced on his general health, arose from the generative organs caused by the same means, which had in all my patients occasioned seminal evacuations.

Previous to his application to me, he had used bark and wine, and carbonate of iron, which had considerably improved his digestive organs, and even his general health, but still he was stupid, and, as he expressed himself, strange even to himself.

As there seemed to be no symptom or affection of any organ to contraindicate the administration of the cantharides, I did not hesitate to prescribe that medicine to this patient, according to the method formerly adverted to; at the same time, I recommended the use of the cold bath.

He took the medicine eight months and two weeks, before he received any thing more than temporary relief from it. He had frequently, for a day or two, experienced greater comfort than before its administration, but he uniformly relapsed into his old state. At the end, however, of the above period, he felt sensibly invigorated, his mind was more cheerful, and his testes werenot nearly so relaxed as formerly. He, however, continued the use of the medicine about seven months more, and he is now perfectly recovered. His mind is still occasionally gloomy, but that is of short duration, and, upon the whole, he enjoys his life with considerable comfort.

Princes Street.

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On the USE of STANNUM.

By Dr. SHEARMAN.

IT has been the lot of almost every substance employed as a remedy in the practice of medicine, to have its virtues at one time highly extolled, and to be very much over-rated, while, at another time, the same substance is depreciated in the public estimation as much below its real utility, and not unfrequently falls entirely into disuse, and is altogether neglected. Hence many articles of the Materia Medica are never, or very rarely employed, because they have not answered the extravagant encomiums bestowed upon them, by those who first discovered or introduced them, and a conclusion is too hastily drawn, that since they cannot effect every thing that has been boasted concerning them, they are unworthy to be retained in practice for the purposes they are capable of answering.

Stannum, in common with other substances, has undergone somewhat of a revolution of this kind; at no time, however, have its virtues been so extravagantly magnified, as we find to be the case with many others, while yet several beneficial effects have been formerly attributed to the employment of it in diseases, which at the present time, are altogether denied to it. There requires no further proof of this, than the variety of preparations of this metal, contained in the older Pharmacopœias, and the virtues attributed to each of them by the compilers of that day, contrasted with the slighting treatment it has met with in the two last Pharmacopœias of the British Colleges.

Without attempting to justify in the least, the high estimation in which it was formerly held, I cannot help thinking, but that the Edinburgh College, in giving no directions for preparing the powder, and the London College, by restricting the employment of it to its metallic filings, have not justly appreciated its effects upon the animal œconomy, and have deprived us of an useful remedy in some cases of diseases, which reluctantly yield to any medicines whatever, and which may sometimes be overcome by this metal, when none others are of any avail. That it is occasionally useful as an anthelmintic, every one seems willing to allow, and both Colleges appear to have proceeded upon the ground of its being useful

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ful for nothing else; both seem to have taken up the idea, that its action as an anthelmintic being purely mechanical, the form in which they have directed it, is the one best calculated to produce the effect expected from its employment in that view. That this accords with the general opinion of Physicians, I am led to believe, from the statement given by the learned Editor of the Edinburgh New Dispensatory, who, under the article Stannum, informs us, "that it is now only used as an anthelmintic, especially in cases of tænia," adding from himself, that "probably it acts mechanically."

A long use of this metal, however, has impressed me with an opinion, that its utility in cases of disease, is not confined to its mechanical action upon the intestines; since I have frequently found it serviceable in several cases of what are usually called *nervous affections*, more especially in head-achs that have been so denominated; many of which have yielded to it, when other remedies have failed, though its success has been somewhat uncertain, and at times has required a long perseverance in its exhibition to insure it, owing probably to its most effective preparation not having been always employed.

I well know that many affections of the head are symptomatic of irregular action in the alimentary canal, and are produced by diseases situated there; and our nosologists have not been sparing in arranging many convulsive diseases as being symptomatic of worms in the intestines, which would afford a presumption, that all the good effects experienced from the use of Stannum in such affections, may be attributed to its anthelmintic properties; but I suspect some fallacy in the opinion of worms being frequently a cause of these affections, they are themselves most commonly a symptom only of the unhealthy state of the alvine canal, and when this is corrected, the worms of course cease to exist, there being no longer a proper nidus for them. The good effects of this remedy, whatever they may be, are not increased by that state of the metal in which its mechanical powers are the greatest, but directly the contrary; and accordingly, I have always employed the metal in the finest state of powder in which I could procure it: this has generally been obtained by the process directed in the London Pharmacopœia of 1787, a very fine sieve being employed for the separation of the powder, which, even in this state, retains somewhat of a metallic appearance.

Two Cases have lately come under my observation, in

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which the use of tin has been followed by the most beneficial consequences, and which I could not fail to attribute to the minute degree of division the metal had undergone. I shall briefly relate them, as they appear recorded in my notes taken during the time the patients were under my care, at the Dispensary, in Old Gravel-lane.

Aaron Brown, aged 11 years, about five weeks before I saw him, had been attacked with head-ache and a considerable pain in his loins, loss of appetite and costiveness; three weeks after that, was seized with epileptic fits, recurring several times daily; they were always preceded by pain in his back, which seemed to extend up to his head; the integuments of the loins were tender to the touch, and there appeared a slight degree of swelling; he had not received any injury. I gave him 6 grains of calomel at night and a cathartic in the morning, and these were repeated at the interval of two days; they produced copious, slimy, and fœtid evacuations. The appetite now became keen; none of the other symptoms were relieved. A blister was applied to the loins, and a grain of calomel exhibited night and morning. The calomel was continued a fortnight, with cathartics occasionally interposed, within which time another blister was applied. No alteration in the symptoms, and the fits were as numerous and violent as ever.

Nov. 13. Stanni præparati ʒi. nocte et mane.

17. Symptoms all the same; bowels regular. Cont. stannum. empl. lyttæ ad lumbos.

20. Blister had risen well; he had several fits in the night of the 17th, and morning of the 18th, but has had none since. Upon being told the powders given him on the 17th were different from his former ones, I examined them; they had nothing of the dark metallic colour of the stannum, but consisted of a fine impalpable powder, nearly of the colour of fresh powdered ipecacuanha. Upon inquiry, I found, that he had been supplied from a fresh parcel of tin, sent in by a different druggist; and from him I learnt, that it had been prepared by subjecting the powdered tin, separated by a fine sieve, to levigation and elutriation,* in the manner directed by the Pharmacopœia for the preparation of chalk.

27. Had

* Does not this operation produce some considerable oxydation of the metal?

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27. Had experienced no return of his fits. Dismissed cured.

The sudden amendment of this boy, immediately upon the exhibition of the new parcel of tin, struck me, as being curious, and I wished to ascertain what share the medicine had in producing this change. Happening to have under my care, at this very time, in the Dispensary, a favourable subject, I again exhibited it.

John Smith, aged 5 years, of dull faculties and fatuitous appearance, about nine weeks ago fell down upon the ground, since which time he has daily had several fits, of an epileptic form; previous to the fits, he complains of a pain in the abdomen, which feels rather tense and hard; they are succeeded by a stupor and profuse sweating; he sleeps well at night. The appetite was at first voracious, is now more moderate. He came under my care about three weeks ago, during which time, he has been taking calomel and cathartic medicines without much apparent benefit.

Monday, Nov. 27. Stanni præparati ℈ij. nocte & mane.

Friday, Dec. 1. Owing to some mistake of the person who fetched the medicine, he had taken only one dose, which was on Monday night; no return of the fits on Tuesday; two slight ones on Wednesday, but not any since. Repetatur Stannum.

This boy, who had all along been very punctual in his attendance, never once having missed, and whose mother was so very anxious for his recovery, as hitherto, implicitly to have obeyed all directions, came no more to the Dispensary, by which I am led to believe he had no further return of his fits, and neglected to come for a letter of thanks, a practice too common among dispensary patients when they no longer need assistance.

I too well know the fallacy of medical experience, to ground any conclusions upon these two cases, one of them rather imperfect indeed; but I think the coincidence sufficiently striking to merit further attention. In Brown's case, the fits returned no more after two doses of *fine tin* had been taken, though the former ones of coarsely powdered tin had produced no effect upon the disease. Smith, after a single dose, passed the whole of the next day without a fit, and the second day after that without any, although he had never missed them before. In neither of the cases were any worms voided; and in Brown, the discharge of fœtid slimy mucus did not prevent the accession of the fits. I shall not omit any future opportunity of giving this medicine; but the only way duly to appreciate the

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value of any remedy is, to make a great many trials by several different practitioners; and those who can readily believe that the same substance, under different states of preparation, may produce very various effects upon the animal system, will perhaps be induced to subject this question to the test of their experience.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

COLLECTIONS of insulated facts may in time form the basis of general rules, or prove the key for the discovery of general laws in Nature. Periodical works like yours, therefore, where every fact may be speedily recorded, become their proper repositories. The number of individuals who are willing to undergo the labour of composing long dissertations, or entering into deep reflections, on professional subjects, is comparatively few. Scarcely an individual, however, engaged in practical medicine, but will have it in his power on various occasions, with little trouble, to add some facts to the accumulating store. He has only carefully to observe, and note down what is unusual, or new to him, as it recurs, to be transmitted to your Journal, or some other of the same sort, as early as convenient.

A fact in your Journal for June last, and another in the one last published, on the pernicious Effects of Ipecacuanha to certain individuals, induced me to send you a similar communication.

Mr. Spencer, indeed, on whose apprentice this drug exerted its anomalous effects, invites the profession to communicate such similar instances as have come to their knowledge. His communication appears to be the first, and the subject has lain dormant till Mr. B. in your last Journal, has added a second, as occurring in his own person; and you, Sir, mention a third in the person of your own father.

To these three cases in the male subject, I shall now add two in the female, who seem to have been affected in so similar a manner by the subtle effluvia of ipecacuanha, that to enumerate their symptoms would be only to repeat what

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what has already been given, respecting these effects above mentioned.

The first of these cases is that of a lady, now about 50, the wife of a surgeon, and mother of a numerous family. The general state of health has always been good, her disposition lively and active, and by no means possessing any thing of that valetudinarian irritability which marks striking peculiarity of constitution. She has been much in the habit, when the hurry of business required it, of assisting her husband in dispensing medicines. This gave rise to her first discovery of the effects of ipecacuanha on her habit.

I had an opportunity of remarking this fact about eighteen months ago, being on a professional visit at her house, while her husband laboured under a severe fever.

She was about to dispense one of my prescriptions, in which some ipecacuanha had been ordered, and the moment she saw what the composition was, she ran from the shop to a distant part of the house, refusing to dispense it. This excited my curiosity to find the cause. On following her, she explained it, and with some degree of anxiety looked round, lest some of the doors between her and the shop should have been left open while the prescription was about to be dispensed.

As my stay was protracted some days, I had occasion to see these fears repeatedly excited. One forenoon in particular, while she was in her kitchen, a considerable distance from the shop, (two passage doors being open between herself and it) while she could neither see nor know before hand, that ipecacuanha, which was the case, was weighing, she called out with vehemence to have the doors closed, on account of the sensations she was then beginning to feel.

The second instance came to my knowledge only the day before yesterday. The lady who is the subject of it, calling on me on her mother's account, who was indisposed, and being shewn into my room, took up your last Journal, which lay on my table, to amuse herself till my appearance, as I was at that time engaged on some family affairs, which detained me a little. On my entering the room, she told me she had been reading my book, and the part which she accidently opened, was Mr. B's communication. She added with a smile, this is far from so uncommon a case as this gentleman seems to think, for I myself am affected by

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it in the same manner; and then went into a considerable detail of the symptoms it excited in her.

The catarrhal affection and sneezing she described as particularly distressing. The copious flow was so acrid, as to excoriate, in a few hours, the parts over which it fell. Her upper lip and the alæ of the nostrils were swelled. But what created in her the most alarm was its effects on her eyes. They became proportionably swelled, and stiff, and sight was diminished. The eye-lids tumefied, so that the eyes were sunk almost out of sight, which seemed to be the chief cause of the diminution of vision. The discharge from her eyes was nearly as great as that from her nose, and little less acrid. Thus was she tormented for that day, but found herself relieved next morning by a night's rest. The remaining effects, the itchings excepted, gradually disappeared, and in a day or two ceased altogether. She felt likewise a tightness in the chest, which greatly impeded respiration; but as she was occasionally affected with a temporary inconvenience of this kind, her sensations were only an augmentation of that symptom, and could not therefore be altogether attributed to the ipecacuanha, though this evidently brought on a severe recurrence. The lady is about 33, unmarried, and of a somewhat delicate and irritable habit, tending to valetudinarian. She discovered its effects on her in the following way. Her late father, a dissenting minister, got into the habit, for several years before his death, from benevolent principles, (whether erroneous or otherwise, is not the business of this place) of prescribing for the poor, and on the Buchan and Reece principle, kept a medicine chest in his house. Gratis practice has generally a numerous attendance, and his, if not altogether, was nearly gratis. This lady was in the habit of assisting him to dispense; and in this manner discovered the effects of this drug on herself. At first she attributed the symptoms to cold, not having any suspicion respecting the powder, but her reiterated feelings on every occasion of dispensing it, convinced her at last, that they must have arisen from its effluvia.

I am therefore of opinion with this lady; and from these five cases now before you, think that we only want observations and consequent communications to convince us that the pernicious effects of ipecacuanha, from its effluvia taken into the trachea and lungs, are far from unusual.

This lady, who possesses an excellent understanding, and a philosophical turn of thinking, put the thing in some measure to the test, by comparing it with the effluvia of

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of another irritating substance well known to induce sneezing and a flow of mucous when applied to the Sneiderean membrane of those unaccustomed to its stimulus, as she was. Being soon after in company, where there were persons in the habit of taking snuff, she placed herself, as if by accident, between two of them, of her own sex. The good ladies had been long initiated in this filthy and often pernicious, though fashionable custom, and as they took it plentifully, dispersed its finer particles around, so that she inhaled an atmosphere thickly impregnated with it. No catarrhal effects were excited, and scarcely any sneezing, though it was otherwise disagreeable to her organs of smell.

Her conclusion was, that the effects she felt from the ipecacuanha, were in consequence of a peculiar quality inherent in it beyond a simple stimulus.

In my turn therefore, I now solicit your readers to communicate such instances of it as may have fallen under their observation.

I am, &c.

R. HAMILTON.

Ipswich, March 12, 1810.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Lament exceedingly that the mortality amongst those valuable aquatic animals (leeches) is become of so great a consequence from a want of knowledge in the preservation, and improper treatment after suction, that renders it almost impossible to procure them even at an enormous price; it is obvious to every medical practitioner, that the utility of them in local inflammations is not to be exceeded, and in some cases, when their applications are immediately necessary, it becomes of the utmost consequence if they are not instantly obtained. As there are many parts where inflammation frequently attacks, that cupping glasses cannot be applied with any degree of advantage, it becomes a matter of importance, to ascertain a way of preserving them after being satiated with blood, and of cultivating them, that they may be procured more reasonable, and with greater facility calculated for the benefit of mankind.

Mr. Peck I observed, in your last Journal, has given some

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some instructions for the preservation of them, and treatment after suction, wherein he recommends keeping them in spring water. Is not spring water too cold and penetrating for this tender animal to exist in, as they are in general found in ditches and ponds, where the water is particularly soft? And when he comes to the mode of treatment after suction, he says, apply salt to the mouth of the leech, and it will disgorge part of the blood, and by a repetition it will entirely evacuate itself. I have frequently observed, that leeches by this mode of treatment, either will not evacuate themselves of the blood, or they are unable, and generally die. And he further mentions, to take particular care not to touch any other part of the leech with salt, except the mouth, or else it will produce blisters, and cause immediate death.

I believe there is no insensible membrane upon the mouth of the leech, I presume I may say granted; consequently, salt must have the same stimulating quality, and be productive of the same effects on the mouth as upon the body; and in my opinion, when blisters are excited upon the mouth, it becomes of more consequence than when on the body, as it renders the animal incapable of supporting life.

In a number of instances where I had occasion to apply them, the following mode of treatment has proved successful, and since I suggested this plan, I have not had a single leech die. Take a gentle hold of the leech and apply it to the part affected, and generally when she is full she will fall off of her own accord; then gently squeeze out the blood, (it will come out in a stream) then wash her clean in soft water, afterwards put her in a bottle, half filled with the same water; cover it with leather, and prick holes in it to admit air. When I have had a scarcity of them, I have frequently reapplied the same leeches in less than five minutes after the first operation, where necessity required, and they extracted as much blood the second time as on the first application, and without doing any injury to themselves, if judiciously managed.

As to Mr. P's other observations on this animal, as a barometer, they are very rational; but as experimental facts have convinced me that his plan is erroneous, that is, in the mode of treatment after suction, it induced me to take up my pen to communicate to your notice my observations and mode of treatment.

I am, &c.

Newmarket, February 9, 1810. E. L. KNOWLES.

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On the vesicating Properties of the Potatoe Fly.

By Dr. John Gorham.

(Read before the Massachusetts Society, February 3, 1808.)

IT is well known, that the only substance in common use among the physicians of this country, for the purpose of raising blisters on the skin is the cantharis, or meloe vesicatorius, a native of the countries bordering on the Mediterranean, and imported into the United States, often through the medium of Great Britain. The expence attendant on this mode of procuring it is undoubtedly great, and the possibility of obtaining, at all times, a constant supply, necessarily depends on the concurrence of numerous contingent circumstances, rarely within the control of the medical practitioner. Hence the physicians of America have acknowledged the importance of cultivating a more intimate acquaintance with those indigenous productions, which, from the activity of their preparations, and the easy modes of acquiring them for immediate use, are capable of being substituted for foreign medicines, and, consequently, of rendering them independent of those accidents and contingencies, whose occurrence, not many years since, was a source of embarrassment, and even of distress to the members of the medical profession on this side the atlantic. Among the small number of domestic medicines, whose active virtues have entitled them to a place in our materia medica, we may rank the Lytta Vittata, or potatoe fly, an insect, which, at certain seasons of the year, makes its appearance on the potatoe vine, and whose effects, when applied to the human system, are perfectly analogous to those of the Spanish cantharis.

The discovery of its peculiar properties was the result of accident, and it was first employed in the practice of medicine, by Dr. Isaac Chapman, of Bucks-county, Pennsylvania, whose conclusions, drawn from a partial investigation of the subject, may be found in a paper published in the 2nd volume of the New-York Medical Repository. In this, confining himself merely to a history of the effects, resulting from its external application, he is perfectly silent on its peculiar habits and modes of existence, and very limited in his description of its entomological characters. From this concise memoir we learn, that at the proper season of the year, it abounds in immense quantities on the potatoe plant, is easily procured and prepared for medicinal purposes, by the immersion of the vessel, in which

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which it is confined, in hot water, and its subsequent drying by exposure to heat; that the powder of this fly, when applied to the cuticle, produces irritation and the subsequent effusion of a serous fluid between that and the cutis vera, and, that in some cases slight strangury has supervened, in consequence of its partial absorption. The effects, resulting from its internal exhibition, have never been demonstrated by experiment; and he infers, only from analogy, that they are the same as follow the use of the cantharides. But though the properties of this valuable insect were thus made public, and its importance in our materia medica much enhanced by the facility with which it may be procured, it is probable that the demonstration of its activity was confined within the narrow sphere of Dr. Chapman's operations, since had it been introduced into general practice, and made an article of extensive commerce, its reputation, in the course of ten years, would, doubtless, have reached the physicians of this part of the country. Notwithstanding, however, that its existence and powerful effects have been known, for some time, to one or two medical practitioners in the interior of this State, it is only within a few days that these have been made public by its introduction into the materia medica of the pharmacopœia of the society by the title of Lytta Vittata,* or potatoe fly. It has, for some years past, been used as a vesicatory by Dr. Israel Allen, of Stirling, and it is to this gentleman that I am indebted for my knowledge of its existence there, and for a quantity sufficient to establish its character by extensive experiment.

The natural history of this insect is still very imperfect, and the following is all the knowledge we have been able to obtain from the publication of Dr. Chapman, and the verbal information of Dr. Allen. The Pennsylvanian fly "has a very near resemblance, in outward form, to the meloe (vesicatorius) alatus viridissimus nitens, antennis nigris of Linnæus, or Spanish flies, as they are commonly called, but is rather smaller than those brought from Spain, and of a very different colour; the head is of a very light red, with black antennæ; the elytra or wing cases are black, margined with pale yellow, and a stripe of the same colour extends along the middle of each of them; the tarsi have five articulations, the mouth is armed with jaws, and

* Dr. Woodhouse, of Philadelphia, has discovered othes species of the Lytta.—Med. Rep. vol. 3.

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and furnished with tarsi." "I found them," says Dr. Chapman, "in greatest number in potatoe patches; and when the potatoes are young, they frequently devour all the green leaves; they are frequently found among beets and garden purslane, of the leaves of which they are very fond." *

The fly of Massachusetts, at least in its dried state, is from four to six lines in length; its head and elytra are uniformly black, and the latter want the margin and stripe of yellow, observable in the insect of Pennsylvania. Its belly is ash-coloured, and in the cavity of the abdomen, as remarked by Dr. Chapman, "is a hard, white substance, about the size of a grain of wheat, which, when powdered, appears like meal, and when rubbed with water, forms a milk-like emulsion." The thickness of the potatoe fly, which is nearly uniform throughout, is from one quarter to one third its length. When soaked in water, its parts may be more accurately observed, and it will be found nearly to resemble some species of the beetle, by the thickness and hardness of the coverings which protect the membranaceous wings. When recently pulverised, it exhales a faint odour, which by some, has been compared with that of the powder of liquorice root, and by others, to althea ointment. It generally appears on the vines about the end of July and the first week in August, and in some years, according to the account of Dr. Allen, in such abundance, that many pounds of them may be collected in a day. They inhabit the soil at the foot of the plant; they ascend in the morning and afternoon, but generally avoid the heat of the sun at noon. As they fly with great difficulty, they are easily caught; and are prepared for medicinal purposes, by shaking them from the plant into hot water, and afterwards drying them by the rays of the sun.

By the very liberal manner in which I have been supplied with these flies by Dr. Allen, I have been able to institute an extensive series of experiments, in different forms, on different persons; and they have never failed, even in a single instance, of producing all the immediate effects which I anticipated from their external application or internal exhibition. As it is unnecessary, however, to detail the greatest part of these, I shall confine myself to the few, which from peculiarity of constitution, or error of management,

* Medical Repository, vol. 2, p. 174.

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management, are most capable of illustrating the position we have assumed of their efficacy.

Case I.—June, 1807. Samuel White, an invalid, about 45 years of age, has, for some time past, been subject to occasional attacks of hiccough. During one of these paroxysms, after the unsuccessful exhibition of various medicines, had a large plaster covered with the powder of Lytta Vittata applied over the region of the diaphragm. During the succeeding night, the patient was very restless, and by frequent change of posture, gradually moved the plaster over a great part of the abdomen; and when he awoke in the morning, found it resting on his thigh. The whole surface of the former was completely vesicated, and incipient blisters were perceptible on the latter. The hiccough was relieved, though not removed. In consequence of this extensive vesication, a strangury supervened, which was soon removed by opiates and mucilaginous drinks. The excoriated surfaces were dressed with the common resinous ointment, and soon healed.

Case II.—June 10. Mary Wareham complained of intense pain in the head, for which blistering was prescribed. A plaster of the potatoe fly was applied, and the next day the vesication was found very perfect, accompanied with constant irritation of the part. The head-ache in a few days subsided, but the inflammation of the cutis was very considerable, continued for some days, and was succeeded by the formation of a number of boils about the size of hazle-nuts, and of extreme sensibility. These, at length, suppurated, and were finally healed by the application of the ung. resinosum cum oxido hydrargyri rubro.

Case III.—January 12, 1808. Sally Sharp came into the Alms-house for rheumatic pains, extending from the hip-joint to the knee of the right leg. The pain in the last joint being most troublesome, a plaster covered with powder of *cantharides* was applied to its surface, and kept in that situation for twenty-four hours; she experienced no irritation on the part, and when the plaster was removed, there was no vesication perceptible: it was again spread with *cantharides* and applied as before; but no obvious effect resulted from its second application. The flies were undoubtedly in good order, since a great number of persons had been completely blistered by powder from the same parcel. A plaster of *potatoe fly* was then substituted, and the next day I found, with much satisfaction, that it had been followed by a complete vesication. The blister,

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to use the homely phrase of the patient, had run half a pint, and for a time the pains were alleviated.

If necessary, I might bring forward a multitude of cases in support of the efficacy of the Lytta Vittata; but these, I think, are sufficient to establish the fact, that as a vesicatory, they are at least equal, if not superior to the cantharides usually employed for that purpose in this country. Since then they are capable, even when externally applied, of producing a very considerable irritation in the urinary organs, we should judge, à priori, that a much more positive effect would result from their internal exhibition; and accordingly, I endeavoured to ascertain the truth of the position by experiment. Having about one drachm of the flies remaining of the parcel which I first received from Dr. Allen, it was infused in about six ounces of proof spirit, and the whole was undisturbed for some weeks. The tincture, therefore, I presume, was saturated, as the proportion of the flies was greater, and the infusion longer continued than the European Pharmacopœias have ordered in the preparation of the ordinary tincture of cantharides.

Case IV.—July 1807. Sarah Peirce, aged 70, was labouring under a paralysis of the neck of the bladder. Her urine passed off insensibly, and her situation rendered her uncomfortable both to herself and to others. The tincture of lytta vittata was prescribed in doses of ten drops twice a day, and these were gradually augmented to twenty drops three times in the twenty-four hours. In the course of few days a slight irritation was produced in the urethra, and the power of retaining her water had gradually increased. At the end of three weeks the incontinence of urine had altogether ceased.

Case V.—J. Nelson came under my care January 25, 1808, for a gonorrhœa of long standing. His symptoms were slight irritation during the passage of urine, and a discharge of a yellowish white matter, opake, and in considerable quantity. He was ordered to take fifteen drops of the tincture three times a day. On the 27th, the discharge of purulent matter had increased, accompanied with much scalding immediately after the passage of the urine; the dose was increased to eighteen drops three times a day. January 30th. Discharge of matter from the urethra lessened; complains of pain on making water, and of a soreness of the fauces, extending into the œsophagus. February 2. Discharge much abated, and the irritation

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ritation in the urethra rather less. In consequence, however, of the increased soreness which was now experienced even in the stomach, the medicine was discontinued. During its exhibition, the renal secretion was much greater than usual.

The tincture has been administered internally in many cases of diminished sensibility of the urinary organs, in gleets, and as a diuretic in dropsy; and it has uniformly been found in all to increase the discharge of urine, and to produce considerable degrees of irritation in the urethra and at the neck of the bladder.

It has also been applied externally as a vesicatory, and was always found to answer the purpose intended, though its effects were I think less complete than resulted from the application of the fly in substance.

From all therefore that I have been able to collect from the communication of Dr. Chapman, the verbal information of Dr. Allen, and the results of my own experiments continued for some months and made on more than fifty different cases, I think I shall be justified in drawing the following conclusions.

1. That the powder of the Lytta Vittata, or potatoe fly, when suffered to rest for some time on the cuticle, is capable of exciting inflammation and producing an effusion of a serous fluid between it and the cutis vera.

2. That the discharge in all cases is equal, and in many superior to that which results from the application of the powder of the cantharis; a remark which coincides precisely with the observations of Drs. Allen and Chapman. The superiority of the potatoe fly in this respect is doubtless owing, in some degree, to recent preparation. The cantharides are brought from a great distance, and there is sufficient reason for believing that their active qualities, like those of other medicines, in general, are impaired by age. Hence therefore this fact may be used as an argument in favour of the general adoption of our indigenous production, since it exists among us, and may be always obtained in a comparatively recent state.

3. That the saturated tincture of this fly possesses the vesicating property of the substance, but in rather an inferior degree.

4. That both the powder and the tincture are capable of inducing strangury by their external application.

5. That the vesication by the potatoe fly is effected in a shorter time than by the cantharis.

6. That

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6. That when taken internally these flies produce all the effects, apparently in the same degree, as result from the exhibition of cantharides.

7. That the inflammation and subsequent secretion of purulent matter, are in general greater from the use of the potatoe fly than of the cantharis.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN your Journal of the present month, there are some observations upon cases which require amputation, where no tourniquet can be applied from its nearness to the trunk, and where there is sufficient room to operate without opening the joint. Thus your correspondent, in the amputation of the shoulder-joint, as the first step, tied the artery in the axilla: I will take the liberty of putting the question to him, whether a sufficient and steady pressure cannot be made upon the artery above the clavicle, so as effectually to stop the current of blood in the axillary artery; which if it can be done, is certainly far preferable, considering the hazard of such an operation, as tying the artery in the axilla, situate in a deep cavity, surrounded with nerves and veins; as well as the consideration of putting the patient to unnecessary pain. That a sufficient pressure can be made on the artery in the groin, so as effectually to stop the current of blood in the femoral artery, I am well convinced, from the numerous operations for the femoral and popliteal aneurisms which I have witnessed.

I am, &c.

A YOUNG SURGEON.

March 7, 1810.

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CRITICAL ANALYSIS
OF THE
RECENT PUBLICATIONS
IN THE
DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

An Enquiry into the Nature, Causes, and Cure of HYDROTHORAX, *illustrated by interesting Cases, and many living Examples of the Success of the Mode of Treatment recommended.* By L. MACLEAN, M. D. 8vo. pp. 519. London, 1810.

It has very justly been observed that the advancement of Science has been much accelerated by a predilection which many of its Professors have entertained for some one of its branches. The powers of the mind thus concentrated on one subject, must necessarily atchieve more than when directed to the contemplation of a wide and extensive range of objects. Impressed with such a conviction, we are ever happy to congratulate the medical world upon the acquisition of any new work, when it contains a history of the labours of a medical practitioner, exclusively devoted to the investigation of one disease. The publication of the volume which we now beg leave to announce to our readers, is of this nature; and its author was first induced to direct his attention to the disease termed *hydrothorax*, because (as he informs us) it has been hitherto, in a great measure overlooked, or so slightly touched upon, as if it claimed no more notice than the common disorders of every season; yet, whether we regard the frequency of its occurrence, the formidable aspect it assumes, the extreme sufferings of the patient, or the almost uniformly fatal termination to which it leads, few demand investigation more than dropsy of the chest. He, however, with much candour, acknowledges in his Preface, that "If the lovers of novelty should look for new remedies, they will be disappointed; but they will find old medicines, or those in common use, applied in different forms and combinations, with different views, and he presumes to hope, with a degree of success unparalleled in the history of the disease:—they will find that in every instance it may be relieved, that in a considerable number it may be kept in check for months, and years, with long intervals of repose, or comparative ease and comfort to the patient; and that in some, it may be perfectly and permanently cured, even under the most unpromising circumstances. This, it is presumed, is more than can be accomplished, in the present state of our knowledge, from any mode of treatment hitherto adopted." If such be the success which has attended his inquiry into the cause of this disease, he has certainly atchieved much for the practice of medicine, by removing one of its most lamentable *opprobria*, and

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we may confidently assure him, that the lover of novelty, so far from requiring any apology to appease his indignation, will terminate the perusal of the book with infinite satisfaction and delight; whether, however, an object so desirable has actually been obtained, we shall endeavour to ascertain, by a candid and impartial inquiry. The objects which the Treatise comprises, may be arranged under four heads, viz. I. The Nature and Symptoms of the Disease. II. Its various Causes. III. Method of Cure. IV. Cases illustrative of the plan of Treatment. An analysis of each of these divisions, we shall in succession offer to our readers.

After having taken a view of the different definitions of hydrothorax, as given us by Sauvage, Vogel, Sagar, and Cullen, our author proposes to us an essential character, which appears to him less equivocal than those of the foregoing authors, which contain a train of symptoms which are neither essential to the disease, nor inseparable from it; but so protiform and insidious are the symptoms, that we fear he has succeeded but little better than preceding nosologists in framing an unequivocal definition. He then enters, at some length, into an investigation of the *precursors*, or early signs, by which the disease may be detected in its incipient stages; these are valuable considerations for the medical practitioner, and we regret that our author's experience has not enabled him to throw more light upon this obscure part of the subject, for whatever merit we may be inclined to give him for his judicious selection, and arrangement of the *precursors* which have been already detailed by other authors, he has certainly added no new information which might enable us more easily and more infallibly to detect the early existence of this "*anguis in herba.*" He next proceeds to the enumeration of the *particular* symptoms, in which he traces their origin, order of precedency, progress, and termination. The derangement of the vital functions is evinced by an impeded respiration and palpitation of the heart, with a corresponding irregularity of the pulse; there is a difficulty, or impossibility of retaining the recumbent posture, especially when the patient is placed on one side; the aspect of the countenance is pallid and livid, and the urine is scanty and high coloured; œdematous swellings, with cold and senseless extremities appear, and the patient is often suddenly aroused from sleep by a most distressing sense of suffocation. Such he informs us may be considered the leading characteristic symptoms of the disease; although many others, not essential to it, very frequently occur, such as cough, expectoration of blood, erratic pains in the region of the chest, external swelling, and fluctuation of water.

Our attention is next directed to the diagnostic symptoms of *dropsy of the pericardium* and of *hydrothorax*; here our author has rather convinced us of the intimate and extensive knowledge which he possesses of the opinions of other writers upon this subject, than afforded us any original observations of intrinsic worth; for we cannot be so unjust to our readers, as to omit observing, that

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our own experience concurs with the testimony of other practitioners, in inducing us to believe that every symptom which is adduced as pathognomonic in *hydrops pericardii* occurs differently modified, and variously combined with others, as well in hydrothorax as in every morbid alteration in the structure of the heart, or any thoracic viscus; the other diseases with which hydrothorax may be confounded are then detailed; but as the experienced practitioner will find no difficulty in easily distinguishing them, we shall abstain from any farther observation. The prognosis is next considered, which we are informed, must be entirely guided by our knowledge of the cause of the disease; an eulogy on the importance of dissection, in advancing our knowledge of this disease, then terminates the first division of the subject.

Amongst the occasional causes of dropsy, our author very properly regards every circumstance which tends to depress or destroy the vital energy of the body; and he considers, that the inordinate potation of porter, ale and beer, more frequently excites the disease *hydrothorax*, than the abuse of other fermented liquors; this he explains by attributing to them a two-fold mode of operation, by undermining in common with other intoxicating liquors the powers of the constitution, and by favouring an accumulation of fat without imparting a proportionate increase of strength; hence those organs essential to life, are overwhelmed with fat, and are consequently inadequate to perform their proper functions.

We are happy to see that our Author considers that the different species of fermented liquors, individually produce different effects on the organization of the body. Whether this is explicable upon the supposition that they impart different proportions of *oxygen* and *carbon* to the blood, we shall not pretend to decide; the fact itself is sufficiently evident, and a farther investigation of the subject, conducted on the solid basis of experiment, would afford many valuable materials for the speculations of the physiologist, and throw considerable light upon the theory of *Dietetics*.

With respect to an accumulation of fat producing Hydrothorax, we cannot but entertain some doubts; the numerous dissections the writer of this article has seen, in which the greater proportion of hydrothoracic subjects exhibited no accumulation of fat about the vital organs, induce him to believe it is very rarely the cause of this disease.

Dr. Darwin's celebrated theory of the *Retrograde action of the absorbents* is then examined at some length, the existence of which he concludes has neither been proved by experiment or rational induction.

The influence of the biliary secretion in the production of dropsy, he considers as not sufficiently understood; it is generally supposed, continues he, that a diseased liver is concerned only in producing dropsy by preventing the free return of the blood of the *vena portarum* and *inferior cava* to the heart, but its influence is exerted earlier, and is far more extensive than is generally imagined.

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gined. He conceives that bile, although an active stimulus to the bowels, is a sedative to other organs, and illustrates his opinion by adducing as an example the torpor and languor which pervade the bodily and mental functions in jaundice. This being conceded, he concludes that the urinary secretion and lymphatic absorption will be always more or less diminished, and that a corresponding tendency to dropsy will ensue.

We next proceed to the consideration of his peculiar plan of cure; and as this division of the subject is not only the most interesting to the medical practitioner, but the most important and decisive in establishing the credit and character of its Author, we shall endeavour to exhibit to our Readers some of the most prominent features of his treatment. He does not profess, as we before stated, to introduce to our notice any new medicines, but proposes to effect all that is desirable by a novel and happy combination of usual remedies. We must here be allowed to observe, that the fashion of combining medicines in every proportion and degree, has more or less obtained amongst the disciples of different schools; we sometimes find the prescription of the physician consisting of twenty compound articles, whilst the same disease is frequently combated with equal success by another physician by the exhibition of a simple herb. In general, the idea of combining a number of remedies with the hopes of the compound partaking of the virtues of each constituent is altogether fallacious; and it is our opinion, that the physician who prescribes with the greatest simplicity, prescribes the best, although the maxim is, doubtless, liable to many exceptions. We do not, however, mean to depreciate the merits of our Author's plan by any preconceived opinions. He prefaces the subject by some general observations, in which he offers several valuable remarks on the different effects of diuretic medicines; "there is," says he, "such a material difference in their mode of operation, that there appear just grounds for dividing them into three different classes, viz.

1. Such as act chiefly, if not solely, on the kidneys.

2. Such as act at the same time on the kidneys, the absorbents, the exhalents, and other secretions and excretions.

3. Such as act solely on the absorbents.

Under the first class, nitre is the only one which ought to be comprehended; under the second, by far the greater number of diuretics in daily use may be included; under the third class, says he, I know no substance of which I dare speak with confidence, except the fox-glove. "The practical inferences arising out of these facts and observations seem obvious," continues he, "for if by experience it be ascertained, that these substances all act differently, is it not reasonable to infer, that by blending and combining them according to their specific powers, a benefit is more likely to result than when separately administered, partially applied, and probably not to the organ which most needs their aid?" He tells us, that if the patient be advanced in years, or his strength exhausted

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by intemperance, a remedy should be selected of such combined powers as might answer every indication at once; a combination of foxglove, certain tonics, saline diuretics, and calomel in moderate doses, will be found the best in such cases; but if the disease occur in delicate subjects, without any organic affection, the digitalis alone will generally succeed; but its salutary effects will be promoted by tonics and moderate doses of the fixed vegetable alkaline salts. When it happens in fat, corpulent subjects, with a sluggish and inirritable fibre, such a combination as will produce the most extensive operation should be prescribed; he then descends into a consideration of particular remedies, which comprehends *blisters*, whose effects he considers important; *digitalis* in the form of an infusion of its leaves, the *squills*, which he thinks should always be combined with some other diuretic; *saline diuretics*, which though precarious and uncertain in their operation, in combination with other means, and largely diluted, will be found powerful auxiliaries; *crystals of tartar* he thinks should be used with caution, especially in thin, delicate habits, where the general strength is much impaired; for it excites the action of the lymphatics to such a degree, as not only to absorb the effused fluids, but also fat and muscle.

Kali præparatum he is inclined to prefer, in many cases, as more safe and certain in its operation, which will not only remove the water, but in combination with aromatics strengthen the digestive organs; its operation seems to be confined chiefly to a morbid state of the absorbents, since in health it produces but little diuretic effect; *broom ashes* owe their virtues evidently to this substance contained in them; the diuretic virtues of this alkali are promoted by the nitrous and other æthers, by the turpentines and certain balsams.

Æther and its preparations he considers as excellent auxiliaries in this disease; they afford immediate relief in distressing respiration; the *nitrous æther* he considers as possessing less antispasmodic, but greater diuretic powers; the *resins and resinous balsams* should be exhibited in combination with squills and crystals of tartar, and will be successful principally in those cases where there is torpor of the liver; *laxatives* should always be employed, when the body is not naturally open; and such as are known to act at the same time on the kidneys; a combination of calomel and crystals of tartar may be given at night, and an infusion of senna the following morning; *calomel and other preparations of mercury*, our author considers more salutary in their agency than is generally supposed; "ample experience, says he, has enabled me unequivocally to ascertain their efficacy." Much will depend however on the quantity and mode of exhibition; if any of its oxyds or saline combinations be introduced into the stomach, in their crude, unqualified state, they will tend rather to defeat, than to promote our wishes. He prefers calomel, because it is less liable to variation of strength, and is more readily blended with other substances;

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substances; its virtues will be always materially increased by previous trituration with some saline substance; and he asserts that two grains thus prepared and blended, will produce a more certain effect, than ten in the ordinary way, and without any, or comparatively with very little, pain or irritation. Whenever there is reason to suspect any derangement in the lymphatic functions, he recommends us occasionally to stimulate the bowels with mercurial purgatives, and at the same time, to charge the habit with it by giving one or two grains of calomel every night. *Blood-letting.*—Cases he thinks sometimes occur, where this operation is absolutely necessary, an example of which is, when the congestion and the accumulation of blood in the right side of the heart, and in the head, (owing to the interrupted circulation through the lungs) threaten suffocation.

The tonics which should be employed after the removal of the water, must in great measure be directed by the circumstances of the case; in general, the light infusions of gentian and columbo, in combination with steel and myrrh, are to be preferred; but if there is a hard dry cough with viscid expectoration, he recommends the exhibition of steel in conjunction with the balsam; *opiates* in this disease he thinks admissible, when the cough is very urgent.

Elaterium, our author has but seldom prescribed, "yet," says he, "from the few trials which I have made, I am inclined to think that it might be found useful in certain cases, cautiously administered in combination with other remedies, more especially in those, in which the digitalis may have failed. *Gamboge* may be rendered perfectly mild, by triturating it with saline laxatives and diuretics. He then closes his catalogue of remedies, with some observations on the operation of *paracentesis*, upon which he observes, that it will not be expected that he should be one of its advocates, when the means he recommends, will, in almost every instance, readily remove the water; he does however acknowledge, that there are some cases in which it should be performed. We are next favoured with some remarks for the regulation of the diet; in general, we are told, such food should be selected which contains the greatest quantity of nutriment in the smallest bulk; thus flesh of mature animals should be preferred to that of young ones, roasted meats to boiled; vegetables should be sparingly used, except those that are *farinaceous*, as rice, which may be fully allowed. With a series of such observations, the subject of cure is dismissed, and would we could say, that part of the work concluded; but the reader has yet to pass through a section consisting of thirty-six pages, upon the *modus operandi* of Foxglove.—We shall abstain from giving an analysis of his opinions, as they are purely speculative, and possess but little novelty; true to the cause of Cullen, he contends for the direct sedative operation of this medicine, and denies altogether the stimulant effect attributed to it by the partizans of the Brunonian school. The author appears indifferent, as to the fate of the speculative opinions he has advanced, and observes, that whe-

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ther they be confirmed or refuted, the practical part of his Essay will not be invalidated.

We wish he had not so far mistaken his road, as to have quitted the sober and steady path of experience, to range in a field of doubt and speculation; we must be excused for expressing our disapprobation of it, and our regret at his not having left the subject to the pen of other logicians. Upwards of a hundred cases compose an Appendix, which illustrate his peculiar plan of treatment, and the success of it.

Thus terminates the work which we have endeavoured to analyse; and we trust, our readers will coincide with us in considering, that the practical information it imparts is of considerable importance; and although we must confess, that the confidence with which he avows the superiority of his treatment, inspired us with hopes of success beyond what the perusal of his work has realized, or, indeed, the nature of the disease could render possible; yet, we must acknowledge that his plan is judicious, and the effect of it successful. The style of the writing is, upon the whole, well adapted for a practical essay; perspicuity is studied rather than embellishment, and although, by a more judicious selection of words, the feeble and inharmonious period would often become more energetic and pleasing, yet we seldom find a passage whose language is distressing to the ear, or whose meaning we do not at once comprehend.

Annual Report of the Royal Humane Society, 1809.

It is pleasing to contemplate the beneficial effects resulting from the exertions of this laudable Institution, there having been no less than 182 claimants for its rewards last year, 118 of which were cases of imminent danger restored to health, or two successful cases at least in every three.

The volume commences with a neat tribute to the memory of the late Dr. Hawes, whose ardent zeal and indefatigable perseverance are well known, and who may justly be considered the Founder of this Society. It appears from the report here given, that the Doctor first took the idea of establishing this Society from the accounts published, of a similar institution in Holland; and as many persons may be gratified by a detail of the humble origin of this now flourishing body, we shall transcribe the whole passage.

"Holland, being intersected by numerous canals and inland seas, its inhabitants were, consequently, much exposed to accidents by water; and many persons were drowned from the want of proper assistance. Hence, in the year 1767, a Society was formed at Amsterdam, which offered premiums to those who saved the life of a citizen in danger of perishing by water: it proposed to publish the methods of treatment, and to give an account of the cases of recovery. Instigated by this example, the Magistrates of Health at Milan and Venice issued orders, in 1768, for the treatment

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ment of drowned persons. The city of Hamburgh appointed a similar ordinance to be read in all the churches, extending their succour, not merely to the drowned, but to the strangled, to those suffocated by noxious vapours, and to the frozen. The first part of the Dutch memoirs was translated into the Russian language, by command of the Empress. In 1769 an edict was published in Germany, extending its directions and encouragements to every case of apparent death, which afforded a possibility of relief. In 1771, the Magistrates of the city of Paris founded an institution in favour of the drowned, &c. And the repeated instances of success in each country abundantly confirmed the truth of the facts related in the Amsterdam memoirs. These memoirs were, in 1773, translated into English by Dr. Cogan, in order to convince the British Publick of the practicability, in many instances, of recovering persons who were apparently dead, from drowning. No sooner were they translated than they engaged the humane and benevolent mind of Dr. HAWES. His very soul was absorbed with the animating hope of saving the lives of his fellow-creatures: but, in making the attempt, he had to encounter with ridicule and opposition. The practicability of resuscitation was denied. He ascertained its practicability, by advertising to reward persons, who, between Westminster and London bridges, should, within a certain time after the accident, rescue drowned persons from the water, and bring them ashore to places appointed for their reception, where means might be used for their recovery, and give immediate notice to him. Many lives were thus saved by himself and other medical men, which would otherwise have been lost. For twelve months he paid the rewards in these cases; which amounted to a considerable sum. Dr. Cogan remonstrated with him on the injury which his private fortune would sustain from a perseverance in these expences; he therefore consented to share them with the public. They accordingly agreed to unite their strength, and each of them to bring fifteen friends to a meeting at the chapter Coffee-house, with the express intention of establishing a Humane Society in London: this was happily accomplished in the summer of 1774. The objects of this Society was then, like that at Amsterdam, confined to the recovery of persons who were apparently dead from drowning."

Various were the obstacles the first promoters of this benevolent plan had to encounter, and the striking novelty of it did not in this instance interest the public so strongly in its favour as is usually the case; perhaps there may be much truth in the following remark; for though we are very far from being inclined to attribute selfish motives to the supporters of our numerous public charities, yet it must be acknowledged, that the gratification which arises from bestowing a personal favour on distressed objects, has now and then no inconsiderable weight.

"There was another obstacle to the rapid success of our Society. In other institutions the subscribers have the means of affording

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fording relief to some sick or distressed neighbour; they have a something at their own disposal; some good they can personally confer, when an application is made to them for that purpose. We have nothing of the kind; we have only an Anniversary Sermon to present to you, and this Annual Report."

As usual, directions are given for the treatment of persons apparently dead, and a description of the Society's apparatus is subjoined. Among the engravings contained in this volume is one of a portable bed, an ingenious contrivance of the Rev. Mr. Davies, of Leicester, the object of which is to afford a general warmth to the whole body, and it seems very well adapted to the purpose, and must prove extremely useful when employed in cases of suspended animation. The Society have also in the directions for prevention of premature death, turned their attention to several subjects, which though not strictly coming within their original plan, are yet highly important in themselves, such as the method of preventing the effects of lightning; the fatal effects of drinking cold water when a person is warm; the effects of excessive cold; the danger from exposure to the excessive heat of the sun; and the burning of the clothes of females; upon all of which subjects any remarks are unnecessary. Among the cases of recovery, is an excellent one, communicated by Mr. Addington, in which the progressive symptoms from a state of apparent death to complete recovery, are well described. Bleeding from the arm was employed, seemingly with every good effect, and Mr. Addington has subjoined some judicious remarks, in which he contends for the utility of that remedy, and endeavours to controvert the opinion of those who consider debility as the chief source of danger in these cases. Much attention has lately been paid to the symptoms of various diseases, with a view of ascertaining what share the brain has in producing them, and whether debility is so frequent a concomitant of diseases, as has been supposed; and as this question is likely to come before us in a variety of shapes, we shall embrace a future opportunity of offering a few remarks on this important subject. A List of the Officers and Members of the Society closes this interesting little volume.

A Series of original Experiments on the Foot of the living Horse, exhibiting the Changes produced by Shoeing, and the Causes of the apparent Mystery of this Art. By BRACY CLARK, Veterinary Surgeon, F. L. S. &c. 4to. London, 1809.

THE importance of the horse to mankind, in war and the chace, was known in the earliest ages, and his uses have so much increased with the advancement of civilization and the refinements of luxury, that man may now be considered as a real Centaur. Without the strength, swiftness and docility of the horse, he can neither defend himself from his enemies, procure his necessaries, or preserve his health. And yet it has somehow unaccountably happened,

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pened, that this noble, grateful, and generous animal, both in health and disease, has till very lately been committed to the care of persons the most unqualified for such a task. It is true, that the wants of the horse are very few; and his diseases, as never brought on by folly or intemperance, are therefore but few. Since, however, the real value and importance of his services, and the *present* shortness of his serviceable life, have been fully appreciated, men of science and education have been encouraged to devote their time and attention to his health and preservation. Our author may justly be ranked in this class. He has only published the first part of his intended work at present; in which, he explains the structure, anatomy, and uses of the several parts of the horse's foot, when completely formed, and in a state of Nature. He then relates his experiments made for several years on the living horse, in order to demonstrate the changes produced on the foot by the present method of shoeing, and the consequences of those changes in shortening the useful life of the animal. As these explanations must necessarily be made the foundation of his future reasonings, and plans for obviating those evils and prolonging the services and comforts of a servant so valuable, he has been particular in describing the structure and uses of the several parts of the foot. This has obliged him, in a few instances, to coin a new term, or limit the use of an old one; and indeed, so beautifully are all the parts adapted to each other, and the whole to the speed, weight and strength of the animal, that we can assure the philosophical reader, that he will be well repaid for the time he employs in acquiring a correct idea of the horse's foot, in a state of nature. To persons totally unused to anatomical descriptions, the subject will probably appear complicated; but we think the force of the author's reasoning, and the truth of his conclusions, cannot be properly understood, without a knowledge of the structure and uses of those parts which he has accurately described in the beginning of the book. These are, the heels, the wall or hoof, the frog, the sole, the horny heels, the bearings of the hoof on the ground, the wear of the hoof, and the cartilages of the foot. The description of these parts is assisted by plates, but the stile is so condensed in general, that we apprehend some readers will think the subject difficult to be understood. The author concludes this anatomical and physiological part of his book with stating,

"Such appear to be the leading principles of construction in the foot of the horse in each separate part, and in the whole combined, as far as our humble reflections and researches have enabled us to consider them. It is these principles, when rightly understood, that can unfold the obscure and intricate effects of the shoe, and these alone: for the shoe, from its nature, cannot in any respect participate in these properties of the foot, and hence the cause of its mischievous effects.

"The assertion, at first, may appear singular to those who have not investigated these matters with a close attention, or viewed the chain

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chain of connexion of these things from the beginning of the services of the animal to his termination at the slaughter-house, through the different periods of his rapidly destructive course; but it is nevertheless true, that the shoeing the animal is, with its multifarious train of consequences, that for the most part has been the root of so many evils to the horse and to mankind, not only by its immediate operation on the structure of the foot, but by its entailed consequences in the use of him, that he is so often rendered unsatisfactory, vexatious, and dangerous through it: for these errors in the management of the feet are ever visited with unmerited punishment upon the animal himself, in order to do away or overcome its consequences by exciting other feelings, though for the most part in vain; and it is from this that the vehicles for draught are filled with all our best saddle horses, setting aside all considerations of humanity, which for certain reasons we purposely exclude from this part of our labours; and it may be with truth averred, that such is the simple nature of the animal himself, and his disorders, exclusive of the shoeing and its effects, that there would be little room for the exercise of *knowingness* or trick respecting him by stable-men or others, if these effects were fully understood, or could in any way be removed; and the dread many have for very good reasons of using horses, or having to do with them at all, would in a great degree be done away.

"For let whatever will be said about these effects being known of the shoe, it is clear from the readiness with which people consent to have their horses shod at any age, on the first summons of the breaker-in of the horse, that they view the shoe merely as protecting the foot, and are not aware of its insidious effects; nor do they afterwards exhibit the least jealousy or anxiety about it, but would rather, as we often observe, treat the proposition of its removal as a piece of inhumanity.

"And we derive some consolation from one reflection on this subject, that even with a continuance of the present method of shoeing, a considerable share of the evil may be removed, and the rapidity of the destruction be greatly in all cases prolonged under certain regulations, though we must admit also there are some services or situations in using the horse, that do not appear to allow of much assistance: but this will be made the subject of future consideration.

"If what we have stated respecting the nature of the horse's foot be true, the effect of the shoe will be almost presumed without any demonstrative evidence; but though reasoning may easily err, and imagination lead us astray, still the actual experiment, if truly related, will ever stand as plain matter of fact, that can neither err nor be denied; and the course of the experiment will also unfold a variety of matter for reflection respecting the foot, which would not properly attach to any thing we have heretofore noticed. We proceed, therefore, to the consideration of this first experiment on the effects of the shoe, in which the public, as far as

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as they are interested in this important inquiry, and especially myself, are greatly indebted to the obliging conduct of Mr. George Hobson, both in providing the subject, and in allowing the mare on all proper occasions to be brought for examination, and the prosecution of these experiments; for next in every state to man himself, in public utility, will be what respects the services and true knowledge of this animal, and how we can best obtain and prolong the period of his services."

The experiments by which Mr. C. demonstrates the pernicious effects of shoeing upon the feet of the horse, consist in taking casts with plaster of Paris, repeating them at proper intervals, and then comparing them with each other. These afford the particulars of the change that takes place in the size and form of the foot, upon which the subsequent tenderness and lameness principally depend. Other circumstances unfolded themselves to him, as the experiment proceeded, which were not foreseen orexpected. We shall present the reader with a few of the details.

"A young mare of great beauty, and turned of five years old, was brought to my shoeing forge from Weymouth Mews, to be shod, that had been bred by George Hobson, Esq. and permitted to run wild and unshod till her fifth year, that her strength and growth should be as much as possible compleated before she was brought into use. The opportunity so extraordinarily afforded me of making the expeirment was not to be lost: for a second, I thought, might not occur; and such another has in reality never occurred to this day. Timid, and unused to have her feet meddled with, to get an impression was attended with some difficulty; the plaster of Paris was poured upon her foot held sole upwards; but before it could well set she grew uneasy at the position, and dashing her foot to the ground, broke it in a thousand pieces, and a second also in the same way. After this, as might be expected, she grew more impatient at being handled, and I almost despaired of succeeding. Being surrounded by many persons, I hoped to effect it better if she was led alone to the stable; and giving her a feed of corn, the better to take off her attention, I placed the foot, unperceived by her, in a bowl containing plaster wetted with warm water, that it might set the more readily. After waiting a few minutes, and the plaster had become perfectly hard, I drew it away from the foot without much difficulty, and it exhibited a complete impression of her foot in all its circumstances. This was done on the fourth day of June 1804.

"After smearing this impression, or mould, with a little lard, to prevent adhysion, some fresh plaster was cast upon it; I thus obtained the figure of the foot represented in *Plate* I; and for the beauty and symmetry of its parts, nature perhaps does seldom surpass it.

"That the reader who is not much used to the study of horses may make himself acquainted with the parts of the horse's foot, we shall, says Mr. C. here describe them in a general manner. They

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are given for this purpose as large as in nature, that there might be less possibility of error; for the natural horse's foot has never, I believe, before been very truly represented; and by doing this he will be the more prepared to trace the changes it is doomed to undergo by artificial aid. The representation has been admitted, both by the draftsmen and engraver, to be attended with difficulty; and, but for the kind assistance of my very worthy and ingenious friend Mr. Sydenham Edwards, it would not have been nearly so well represented as it is; we may also remark, that a tolerably distant view of it, from its being so large, makes it appear to more advantage than a nearer one."

The description of the several parts then follows, for which, as well as the plates, which are necessary to illustrate them, we must refer to the work itself.

Exactly a year and nine days after the first application of the shoe, a second cast was taken from the same foot, of which an engraving is given. "During the whole of this period the shoeing smiths, who were as steady men to the full as any others in their line, were left to the practice of their own art, without the smallest interference or control of any kind on my part. They were aware of the cast being taken from the foot, and were not less careful on that account in their attentions in shoeing her."

"Let us now," says the Author, "mark with precision the differences which have taken place, and see what have been the effects of fixing the foot without intermission for a period of twelve months to an inflexible iron ring, for such is briefly the fact with respect to the nature of the shoe, by whatever name it may be called; for the word *shoe* has had its fascination also in concealing its effects, by reminding us of the comforts we derive from our own shoes made of leather, and elastic to the foot, to which neither in the material of which it is made, or the mode of its application, has it the smallest correspondence; of such force are names that mere chance often confers on things in blinding our views of their actual nature.

"The original state and proportions of the foot being before us, and perfectly preserved, we are enabled to make an exact comparison of its former and present condition; a diminution of volume throughout is strikingly manifest, but more so in the elastic parts. A mechanical hardness marks the appearance of it, in place of the flowing easy outlines observable in the original cast. The evident competency in the parts to their respective offices, which the eye recognizes in the former, is done away in this; and such is the general diminution of the foot, that actual lameness would naturally be supposed the effect of so much alteration unless explained, for this does not take place for the following reasons, — that the parts have suffered their alterations slowly, and, from being in their nature yielding and elastic, have given way to the effect of the shoe, as far as the diminution extends at present, without much resistance; and above all, that during the application of the shoe the

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the parts that have most suffered are not called into action, nor are their uses required, so that the foot by degrees assumes a new sort of existence, and gradually adapts itself, as much as a living part can, to the effects of the iron circle, and cannot afterwards do without it.

"We now examine the nature and extent of these changes wrought by the shoe; first observing, that in drawing away this second impression we were surprised to find with how much greater force it was held, and difficulty it came away from the foot, than the former cast did, and as immediately appeared from certain alterations that had taken place in the relative situation of the parts of the foot, as also from the slanting surfaces of the bars and frog having assumed a more perpendicular direction.

"The elastic parts of the heels have lost their swelling, rounded, and beautiful appearance, by the sinking of the cartilages and the loss of the elastic matter within; and the surface they now present is an ugly flat slope towards the base of the frog.

"The horny heels, from one to the other, in the original state of the part, measured somewhat more than four inches; in the second cast scarcely three. The foot, measured across its widest part, viz. at the greatest swell of the quarters, was in the original cast nearly five inches and a half; in the second cast it was four inches and seven-eighths. The actual length of the foot, we may remark, has not been much changed; which seems to confirm the circumstance that the cause operating these effects had been lateral principally, and serves to evince its having been the effect of the nails.

The frog had lost, through its being wasted and cut away by the smiths, the rounded swelling and projection we have distinguished by the name of the *Cushion*; and its lower surface, though its substance was so diminished, was lower by near one fourth of an inch than the horny heels, or wall; for it may be recollected, in the account we gave of the frog, that this part was then three-eighths of an inch within this level. This appeared to arise in part from the condensation of the horn of the heels, from the constant pressure of the shoe upon them, and also from the circumstances we have before explained, on the cause of this descent of the frog, which it will be unnecessary to repeat. The texture of the frog, from an agreeable yielding and elasticity, had become hard and unyielding to any impression of the fingers; and its sides, which at first were gently inclining or sloping to the commissure, had become almost perpendicular. The *cleft* at the base of the frog had become partly closed, forming a rounded ill-formed hole, and much deeper than the cleft of the natural foot. The base of the frog, which was in the natural foot of the width of two inches and a half, had now become hardly so much as two inches. The bars had considerably lost their sloping direction, and had become more perpendicular and encroaching upon the sides of the frog, and consequently more disposed to compress it.

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"The sole appeared somewhat more arched or cupped than formerly, but the degree of thickening it had undergone, as also the elasticity it had lost could not be accurately ascertained in the living subject. Thus we see the beautiful and useful symmetry of nature's mould, no part of which is without its use, has been changed by artificial restraint to deformity and incompetence. Many there are who have added unnecessarily to the obscurity of these cases by confounding them with, or supposing them the effects of standing in the stable; of which, in the next part, to set things in a more clear light, we shall give proof enough from actual experiment, that however inimical to the feet the stable may be, it is wholly incapable of producing such powerful effects as these, which can be shown most convincingly in two ways; viz. by shoeing, and turning the horse to grass, when the same effects will ensue; and also by keeping a horse unshod in the stable, which we have for years done, when no effects of this kind have taken place. The worst cases of contraction also, we may observe, are with stage horses, that have little standing in the stable.

"No shoeing-smith or dealer would complain of the foot as it appears in fig. 2; though it is a wide departure from the model which nature has established for the foot of the horse. And so little has this fact been attended to, even by those better informed than dealers or smiths in these matters, that I remember some years back Mr. St. Bel, the first professor of the veterinary college, sending forth to the world with his Essay on Shoeing, as a model of a perfect foot of the horse, one more diminished than this; nor did he know that nature, from the use of the shoe, had suffered much change; nor did any of us studying at that time at the college at all suspect it, at least, that there was in these cases much alteration of an injurious nature.

"If horses were brought there with contracted feet, as must have been daily the case, they scarcely obtained notice, from our habits of constantly seeing them in this state, unless they were attended with very great crippling and tenderness indeed; for it is most usual with people finding defects of this sort to avoid the evil by parting with their horses, and to take as little notice of the fact as possible; and many there are who stoutly deny there is any such thing as tenderness in the fore feet of horses; and some there are who appear insensible of it till a fall convinces them of their danger, when they are apt to become as much too timid as before they were too confident. Horses of this description, it has been before stated, can still, after they are sold, be made serviceable; for employ will never be wanting for the cheap horse as long as severe bits and a bearing rein can keep them up, or the thong can draw from them an exertion, for harness is the only resource while they last. And these defects of the feet were somehow or other considered as casually arising from a defective nature of the foot itself, or from bad shoeing, as it was termed: and in one sense this might be true; for if shoes were fitted out very small with a view

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to *neatness*, as it is called, it would obviously accelerate the mischief in a greater degree than when a more liberal allowance was made in this respect, and which circumstances resting entirely with the discretion of the workmen, in no way, perhaps, suspicious of its consequences, would ever be a matter of uncertainty; for the fact appears to be, that the finer the feet the sooner they are destroyed: hence the feet of blood horses are the first to experience its effects.

"Five years of unrestrained growth had perfected this mare's foot beyond what is generally seen at the commencement of shoeing, which usually takes place on the second, third, or fourth year, and before the foot is nearly unfolded or grown to its size; so that the great change that is here observable is more strongly manifested than it would be in ordinary cases of shoeing; and the foot cannot be expected to exhibit differences so great and conspicuous in succeeding years as in the first, there being less of elastic matter to act upon. Nevertheless, every year will have its effects, and will bring the hoof in closer approximation to the coffin-bone; and at length we shall see that a partial diminution of the bone itself will be the consequence, with other derangements of it.

"The horse, we may remark, like other large animals, is slow in acquiring maturity, and like them, is not very short-lived. Some celebrated writers have considered the natural period of his life about fifty years. This was before the art of shoeing commenced, and may be not far from the truth in those times. If we were to give an opinion on this matter, we should state it as our belief, that he acquires his stature or height at about five years, but obtains his full bulk and strength about the eighth year; and this period, as in most other animals, if multiplied by four, will give somewhere about the period of his natural life; which, without any desire of unnaturally extending, would be from thirty-two to forty; and at the former age we have seen (setting aside the state of his feet) horses capable of a great deal of service. But what we wish to remark is, that frequent visits to the slaughter-house, a useful school, but not much frequented, have led us to observe and conclude, that six arrive there before fourteen to one after the fourteenth year! for they so early become cripples through the injuries of their feet, that it is found most advantageous to the interests of those who get these kind of horses that are daily becoming tenderer, to "use them up" by the severest measures, and most unnatural usage, rather than to endeavour to prolong their labours by preserving them; and there is no want of supply through the causes above described, at least principally; and it deserves a closer attention from the public than it has ever yet received; for men, as we have before observed, have been really afraid to look into these things about horses, as though their affairs were somehow clothed in fearful and impenetrable mysteries."

Knowing the true cause of this destruction of the feet, it is a-

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musing to hear the opinions of those, to whose care this noble animal has been committed for so many centuries.

"If the stable-keeper is asked why his horses are so tender footed before? and why there needs so much trouble to keep them up? so much so, that all pleasure in riding is destroyed, his answer is, 'Why, horses to be sure will by use become leg-weary, and every one who *knows any thing about horses* knows that well enough,' and with a smile at the simplicity of the enquirer he quits the subject.

"If any one, not having the usual awe of this character, should ask the coachman why he wants two or three kinds of irons to be put in his horse's mouth, his answer will be, 'Why, would any one be so mad as to attempt to drive without them?' Then if you are apprehensive of your horses' falling, what is the cause of this? 'Go ask the smiths, they can tell you better about it, they don't *shoe them safely*.'

"If the shoeing smith be enquired of respecting this matter, and how does the horse become tender? 'Why, it is to be sure from always standing on the dry litter of the stables, and that is plain enough, for the hind feet are never affected, because they are more in the dung and moisture, which makes it clear enough;' and thus this business is disposed of without further trouble among them."

Our author is still continuing his experiments on the same mare, and has given an engraving of a cast taken after two years shoeing, and another after three years. By a comparison of these with that representing the foot in its natural state, the most superficial observer cannot fail to notice the great change in the outline of its form. In the natural state, the bearing part is nearly circular; a figure which is well known to contain the greatest possible area, and consequently the greatest bearing under the same circumference. Every mechanic would therefore infer, that this was the best possible form for the sole of a quadruped of such weight, strength, and swiftness. In the feet that have borne the use of the shoe for only three years, the circular form is changed into one almost resembling a parabola.

The breadth from outside to inside is greatly diminished, while the length from heel to toe is considerably increased; notwithstanding the frequent paring and filing away of the toe by the smith. As scarcely any persons except smiths, have opportunities of seeing the foot in its natural state, and they but rarely; and as the feet of the most admired horses of the blood kind, which have been shod a few years, are of this long and narrow form, we by habit learn to consider it as the most beautiful and natural.

The second part of this work, which is ready for the press, will contain an account of experiments made on other horses; plans and measures for preventing the evils resulting from the present mode of shoeing; how the *founder* in horses is produced; the defences

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fences of the feet used by the ancients, with a variety of other subjects mentioned in the contents which accompany this first part.

We hope this short analysis will give our readers an idea of the great merit and importance of this work; and we are confident that no veterinary surgeon who learns that it is published, will be slow in procuring a perusal of it.

Report of the Diseases of Edinburgh for February, 1810.

By John Roberton, M. D.

The mildness of the weather, at the commencement of this month, has, I believe, scarcely ever been equalled in our northern latitude at the same period. In consequence of this, vegetation made considerable progress, and insects of various kinds, whose existence can only be expected during the summer months, appeared in various places. In a week, however, we were again plunged in the very depth of winter. Frost and snow prevailed, and the first of these continued gradually to increase in severity. Additional and frequent, though not heavy falls of snow, occasionally accompanied it; and the weather became excessively cold. Before the termination of the month, we had also frequent falls of snow, which, however, were neither very heavy, nor did they continue long on the ground. The weather toward the end of the month was alternately soft and frosty, with frequent most tremendous hurricanes.

The barometer, till near the end of the month, was, in general, rather high, but then it fell considerably.

The thermometer, during the first third of it, stood, during the day, from 45 to 50, and some days it was even above 50. During the night, however, it sunk to near the freezing point. From this, till within a few days of the termination of the month, it was generally below the freezing point, and for several days together was seldom less than 10 degrees below it. During the soft days, near the end of the month, it of course rose considerably.

The diseases which have prevailed, have been numerous, but in general not very destructive. To those of last month, most of which still prevail, there have been added chin-cough, measles, and bowel complaints; and the cases of inflammation of the lungs, &c. and those of catarrh and cynanche tonsillaris, have become both more general and more severe. This increase of severity, in some of these

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these complaints, may easily be accounted for. It is very common, in this part of the world, very early in the year, for the weather for a short period to become mild and agreeable. This induces a great proportion of the thoughtless part of the community to alter their dress, by too early taking off a part of their winter clothing. This annual mistake, subjects numbers to complaints, which, were they to recollect for a moment, the very unfavourable sort of climate in which they exist, would probably never affect them. Thus some very severe cases of catarrh are frequently to be met with during the spring months, and many of a consumptive habit, from this circumstance alone, have their lungs affected, which, with greater care and attention, might have been prevented for a long period, if not for the remaining years of their lives.

I may mention, also, that the cases of cynanche tonsillaris are, in general, considerably aggravated since last month. There are also various cases, independently of the throat being affected, in which considerable feverishness exists; the mouth becomes inflamed, and unless speedily checked by confinement to the house, by repeated doses of physic, gargles, &c. it proceeds to ulceration, and proves exceedingly troublesome to the patient, and in many, especially those advanced in life, some of their teeth have fallen out. In such cases, however, even when permitted to proceed to the greatest pitch of severity, I remove them in a short period by frequently washing the mouth with port wine and water, and by administering repeated smart doses of physic.

The cases of chin-cough do not seem to be numerous, nor do the measles prevail very extensively. Both of these diseases, however, have, in various instances under my observation, affected three or four of the children, (for among them they are chiefly to be met with) of one family. I have found the most successful practice in the chin-cough, to be that of instantly, on the appearance of the first symptoms, putting the child to bed, and, during the first few days, preserving the body in a very equal and rather elevated temperature. This has, in general, seemed greatly to moderate the symptoms.

In such cases of the measles as have come under my observation, I have found the greatest benefit arise from the body being preserved in a temperature of about 60°. That, with the application of two or three leeches to the temples, on the first appearance of the symptoms, has been conspicuously beneficial.

Inflammation

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Inflammation of the lungs, in particular, has appeared more frequently than at any period during the winter, and in greater severity. In several cases, I have found it necessary to order venæsection once every day for eight or ten days, even till the patient fainted at each time. In several cases, where the utmost activity of practice was persevered in, the patients have died. Some of their bodies were opened after death, and the adhesions between the lungs and pleura in some, were inconceivably strong, and existed at every point where the lungs could be brought in contact with the pleura. In others, there was an immense quantity of a sort of purulent matter secreted in the thorax.

The bowel complaints progressively became worse from the commencement till the termination of the month. This has, in almost every instance, been attended with feverishness; and the acute pains in the bowels which many suffered, were indescribably severe. In general, however, two or three doses of physic entirely removed this complaint; but in others, I have found it necessary, daily to employ emetics, and physic alternately, for more than a week.

Princes Street.

An Account of Diseases in an Eastern District of London, from February 20 to March 20, 1810.

ACUTE DISEASES.		Menorrhagia	6
Pneumonia	5	Fluor Albus	9
Peripneumonia Notha	6	Dysuria	5
Rheumatismus Acutus	4	Rheumatismus Chronicus	9
CHRONIC DISEASES.		PUERPERAL DISEASES.	
Tussis	20	Peritonitis	8
Dyspnœa	14	Menorrhagia Lochialis	4
Tussis cum Dyspnœa	24	Ischuria	3
Catarrhus	3	Mastodynia	5
Phthisis Pulmonalis	3	Dolores Post Partum	6
Hydrops Pectoris	6	INFANTILE DISEASES.	
Pleurodyne	5	Diarrhœa	5
Anasarca	4	Convulsio	3
Enterodynia	4	Tabes Mesenterica	4
Hypochondriasis	3	Ophthalmia	2

Many of the cases of pulmonic diseases, which have lately been referred to, terminated favourably. In a few instances,

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instances hæmoptysis has occurred. This, though it has appeared to give some temporary relief by the abatement of pneumonic symptoms, must yet be considered as an unfavourable circumstance, as it is a strong indication, especially in younger subjects, of a predisposition to phthisis. In one instance, by taking away a little blood, and prescribing a very strict regimen, in which every thing that tended to quicken circulation was expressly forbidden, the appearance of this symptom was for the present suspended; it returned, however, in a few weeks, and, from the sensations the patient describes, it seems probable that it will soon make its appearance again, and continue by its frequent recurrence to keep up an alarm respecting its future consequences.

INTELLIGENCE.

M. Modeste Paroletti, has published a very long Memoir in the *Journal de Physique*, for the month of March last, of which we can only give the outline. It goes to excite the attention of the learned, to discover the nature of morbific exhalations, by the employment of colouring matters, as chemical re-agents hitherto little known, in order to throw light upon certain diseases.

Having observed that the bright scarlet colour of the American seed *(abrus precatorius)* changed into an ebony black, in the space of an hour, when held between the hands of his child, and placed in the bed at the time he lay ill with a putrid fever, he instituted an enquiry into the cause of this phenomenon. He found that the whole of the inside of these seeds became blackened, and that their natural colour was in part restored by the nitric acid. He tried in vain to re-produce the same phenomenon with the same patient.

These red seeds, exposed to the exhalation of putrefying animal substances, acquired a shade of dark red. Carbonic acid gas gave them in a few days a deep tinge, like the colour of wine; plunged into a mixture of three parts of hydrogen gas and two parts of azotic gas, they became of a blackish brown colour; but they took a very intense black colour, very nearly resembling that produced by the morbific virus, when they were immersed in a mixture of three parts of hydrogen, one of azote, and one of carbonic acid. Carbureted, sulphureted, and phosphureted hydrogen gas, appeared to him, when tried separately, to produce no action upon the red colour of the American seeds.

In reasoning upon these facts, M. Paroletti says, " It is probable that hydrogen, azote, and carbon, are among the number of constituent

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constituent principles of morbific miasmata; it is natural to believe that the nitric acid, which acts in a different way to what these three substances do, exerts a decomposing power upon them. This opinion is confirmed by theory, and by the success of the means of disinfection which we employ. The only conclusion that we ought at present to draw is, that it is of very great importance to extend our knowledge of azote and hydrogen. He adds, "I shall conclude with two observations which arise from these experiments, and which may show the utility of employing *colouring matters* as re-agents in chemical researches. We have only vague conjectures on the nature of different cutaneous secretions which take place in a great number of diseases. The chemical knowledge of these discharges will be of great service in medicine. The colouring matters offer themselves as useful instruments in this kind of discoveries. We only want an accurate account of the different changes of colour caused by the exhalations in a great many diseases, to institute a set of experiments, the results of which would be highly interesting."

Mon. DESCROIZILLES has inserted some observations, in the Annales de Chimie, vol. lxvii. 80, on the use of the *pickle of violets*, as a re-agent, which can be had at all times, while the syrup is liable to be spoiled by keeping. It is made by pouring double their weight of boiling water upon the petals, slightly pressed, in a clean pewter measure, which is to be exposed for a few hours to a heat rather greater than a water bath. Add to the infusion, when strained, one third its weight of very fine white salt, stirring it till it is dissolved. It should be kept in a phial corked up. For use, dip a small stick into this liquid, and touch a clean earthen plate in several places. Vegetables and flowers, as roses, may be preserved any length of time for distillation by salting them. Rub one-third their weight of salt with them, which forms a kind of paste of little bulk; dilute this in the still with twice its weight of water, and the distilled liquor will be equally fragrant as when drawn from the fresh plants.

We have received a specimen of the gum of opium from Messrs. VINCENT, NURBEL & Co. Chemists in Old Bond Street, which is much used in France, as possessing the anodyne and soporific qualities, without producing the disagreeable effects on the head and stomach, so much complained of in the common opium. — From the few trials we have made of this gum, it appears to be a valuable preparation of that important drug. One instance was that of a delicate lady, who had never been able to use common opium, even in small doses, without experiencing distressing nervous sensations, disturbed sleep, and on the morrow, severe headache and sickness. A grain of this gum, taken by her, produced none of these disagreeable effects. The dose is the same as that of common opium. The following is their method of separating the gum from the resin. Take any quantity of crude opium, and cut it

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it into small slices; pour a gallon of water to each pound of opium, and let it digest for forty-eight hours, often stirring the fluid. Filtre the liquor, and evaporate it to one half; to this add cold water, equivalent to what was evaporated. Filtre again on the morrow, and repeat this operation for ten days or more, or until the addition of cold water throws down no more precipitate; then evaporate the liquor in a water bath down to an extract. The resin precipitated by the cold water is kept for external applications.

The Austrian government has lately proposed the following prize-questions, relative to substitutes for various foreign articles in the Materia Medica. 1. What indigenous or European productions, distinguished by specific effects, may be substituted for those now brought from India. 2. A substitute for camphor. 3. A substitute for Peruvian bark. 4. What species of plants may replace senna, jalap, and ipecacuanha? 5. A substitute for opium. The prize for each question is five hundred ducats.

The Medical Society of London, held their Anniversary Meeting on the 8th instant, at their house in Bolt-court, when the following officers were elected. President, Dr. Lettsom; Vice-Presidents, Dr. Bancroft, Mr. Norris, Dr. Pinckard and Mr. Abernethy; Librarian, Dr. Clutterbuck; Secretaries, Mr. Good and Dr. Hamilton; Council, Mr. Field, Mr. Chamberlaine, Dr. Haighton, Dr. Adams, Mr. Seaton, Dr. Thornton, Mr. Griffith, Mr. Robinson, Mr. A. Cooper, Mr. M'Donald, Mr. Hopkins, Mr. Geo. Young, Mr. Platt, Mr. Addington, Dr. Lidderdale, Mr. Ramsden, Dr. N. E. Bancroft, Mr. Lawrence, Dr. Shearman, Mr. Forster, Mr. Saumarez, Mr. Lewis, Mr. Upton, Mr. Beveridge, Mr. Harvey, Dr. Temple, Dr. Bateman, Dr. Fothergill, Dr. Birkbeck, and Dr. Hancock; Registrar, Mr. A. B. Turnbull. After which the Society adjourned to the London Coffee-house, Ludgate-hill where an excellent oration was delivered to a numerous audience by Dr. Birkbeck, "on the inaccuracy of Medical Logic, and on the Expectation of future Improvements in the Science of Medicine." The Members of the Society afterwards dined together as usual.

Dr. BRADLEY is preparing a Work, to contain the First Lines of the London Practice of Physic. This is intended to be a strictly practical book, and therefore, will not include those preparatory branches, denominated the Institutions by Boerhave, or the Theory of Medicine by others. It is also designed to avoid all interference with Midwifery and Surgery; so that one moderate volume, it is presumed, may contain the first lines of medical practice. The Author will avail himself of the assistance, both of his medical friends in the metropolis, and of the labours of those who have practised in distant countries; or where climate has a powerful effect in modifying the symptoms and mode of treatment.

We are much obliged to Mr. Foster for his communication, which, with Mr. Hargrove's, shall appear in our next.

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THE

Medical and Physical Journal.

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Case of a Solution of Continuity in the Parietal Bones, not consequent to external Injury; by GEORGE HARGROVE, Member of the Royal College of Surgeons, London, and Assistant Surgeon in the Royal Artillery.

WILLIAM SMYTH, a Sergeant in the Artillery, aged thirty-eight years, is a married man, and the father of two or three fine children; he is apparently delicate, but this I attribute to the existence of the affection; in other respects he enjoys a sound and healthy constitution. After investigating the history of his health from the earliest years, exclusive of his appearance at present, I have been unable to ascertain any symptom that would indicate a tendency to the scrophulous habit, nor have I any reason to believe he has suffered from a syphilitic affection, to which I could impute the production of the extraordinary effects now apparent.

About seven years since he was first attacked with a wandering pain of his head, which, agreeably to his account, set in with a degree of violence scarcely possible to conceive. It was accompanied by a large, soft, and puffy tumour, which subsided and rose again at different intervals, shifting its situation from one temple to the other, and from the forehead to the summit and back part of the head. He describes it as having been of a stinging and lancinating nature; and what appears remarkable, he found no alleviation from his sufferings, except when he stooped forward, resting his head on his hands; and when in this incumbent position, a sudden accession of lethargic stupor uniformly produced a suspension from pain. At times, however, a slight remission occurred; and during one, of a more permanent description, he was ordered to proceed on duty to Malta, where he quickly regained his health and spirits, and pursued his military avocations for two years, with the same effect he had

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done before he had been seized with the affection of his head. He was now ordered to return to England, in the usual routine of duty, and had only been about two months at Portsmouth, when the pain and tumours came on in a most distressing manner. After a stay of some months at the latter place, during which he had a miserable existence, he was ordered to Guernsey, while in one of his temporary remissions of pain, and shortly recovered, so as to enjoy perfect health in this island for five years, at the expiration of which time he was again ordered home, and the complaint returned with such severity, as to be unequalled by any former attack.

A circumstance particularly worthy of observation is, that since the first accession of those extraordinary pains, he had never been in better health than when on foreign service, nor did he ever suffer more than when, for any length of time, in his native country, which the preceding paragraph sufficiently corroborates.

About the beginning of June, 1809, the pains and tumours became unusually troublesome, so much so, that if he wore his regimental cap even for a few minutes, one continued tumefaction surrounded the edge of it. He informed me, that shortly before this period he fell suddenly, from an universal dizziness that affected him, but received no hurt or accident by the fall, nor any that he could call to his recollection from his earliest years. In June, a painful phlegmonous tumour, about the size of a small walnut, arose over the middle of the sagittal suture, which suppurated, and burst with a very small opening; this gave exit to a trivial discharge, but was not succeeded by an abatement of his pain. It was now deemed expedient to dilate the opening, when a large collection of pus, of an apparently good consistence, was discharged. In a few days after, slight exfoliations were observed to come off piecemeal, to the great surprise of the medical gentlemen attending him, until at length the dura mater was laid bare. This membrane was found to have receded from its attachment to the cranium for the extent of half an inch around the aperture.

The man now first began to express his sense of amendment, and shortly after mentioned that he felt complete relief from his pains. This opening is situated precisely over the great longitudinal sinus, and is now about an inch in circumference. Another matter of surprise is, that it has been discharging ever since, without remission, generally to the extent of about two wine glasses in twenty-four

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four hours, but at present is reduced to one. At this moment I observe the motion of the brain pumping off (if I may use the phrase) a quantity of purulent matter of a yellow colour and thin consistence. I have observed an osseous matter filling up the aperture, but it is perforated, and seems to give way for the discharge. The dura mater does not appear disposed to throw up that peculiar fungus so often observed after applications of the trephine, nor to suffer in the least from its frequent unavoidable exposure; the edges of the integuments around the opening are inverted, and do not seem disposed to close over the aperture. During the exfoliation of the bones, the man sunk into a state of debility from the quantity of pus hourly secreted and evacuated; he got better, however, from the use of bark and exercise; these, indeed, have been the only means he has made use of for the recovery of his health. He does not suffer the least pain or inconvenience from the opening, or from the application of a sponge or cloth; and it is simply defended from the influence of the atmosphere by a compress of lint and a piece of flannel. This man is an out-patient, and generally visits the Hospital twice or thrice a week.

I should have mentioned, that another tumour lately appeared over the frontal bone; it has been opened, and discharged a quantity of thick pus. The part is not painful, and the chances are, I fear, that it will terminate in a state perhaps similar to the other, although it has not been attended with inflammatory symptoms to any thing near the same extent.

REMARKS.

This curious affection, in my mind, bears a more striking analogy to Necrosis, than to any other disease I have heard of; indeed, many of the symptoms the man labored under, were those of that disease; but still the consideration of other attendant circumstances induces me to adopt a different opinion, although those circumstances may ultimately prove destitute of a source sufficiently plausible to account for them. I am led to imagine that the effect produced has been the operation of Nature, for the purpose of giving exit to some offending quality that existed, I suspect, within the cranium, which was evidently productive of the most serious consequences, considerably affecting the functions of the brain. This was manifest from the man's sufferings prior to the formation of the opening in the bones. But here I am at a loss to account

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for the absence of other concomitant symptoms usually present on such occasions; however, the continual state of distracting pain the man had been in; the complete cessation of it on the opening being formed by *spontaneous* exfoliations, and his being totally free from this pain for those last eight or nine months *while in England*, during which time it has been throwing off such an immense quantity of purulent matter; together with the remarkable fact of the pain being changed for a state of stupor and sleep, as long as the head was placed in that position most favourable for the diffusion of a preternatural fluid, if such did exist,—are severally, events that strongly incline me to adhere to the last Supposition, in preference to any other which my short experience could adduce, or my imagination is capable of suggesting.

The case, however involved in obscurity, is an instance in addition to numberless others, elucidating the wonderful powers of Nature for the completion of her designs: for, we observe that a considerable portion of the highly requisite defence and support of that important organ the brain, is, in toto, removed, and even from its peculiarly strong adhesion to the dura mater along the course of the suture, and over the longitudinal sinus, most certainly for some great cause, which the instantaneous change in the man's health plainly evinces; thus producing an effect which has occupied the attention of authors and practitioners since the existence of the records of Surgery, when the result of external injury.

Should I, at a future period, have an opportunity of ascertaining the final issue of this case, I shall feel happy in forwarding the communication.

Royal Artillery Hospital, Woolwich,
March 18, 1810.

Cases of Hydrothorax, by Dr. MACLEAN.*

I Had hitherto prescribed the digitalis only in an irregular and casual way, and my success was not such as to encourage farther trials. But often observing no sensible effect

* The analysis of Dr. Maclean's Work on hydrothorax, given by our Reviewer, in the last Number, is so concise, that we think it necessary, in justice to the merit of the Author, as well as to enable our Readers to form a judgment of the propriety and success of his mode of treating this formidable disease, to lay before them two or three of his cases. ED.

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fect either good or bad from what I had reason to believe were full doses of it, I began to suspect the quality of the preparations that were used. Accordingly, about this time I took some pains to procure the herb genuine, and began to cultivate it in my own garden. The result I have every reason to be satisfied with; indeed it has exceeded my most sanguine expectations. The fortunate issue of the following case, the first that occurred afterwards, induced me to pay still further attention to its preparation and exhibition.

CASE XII.

March 12, 1796.—Mrs. E. æt. 40, the mother of several children; of a constitution naturally delicate, and much weakened by the cares and fatigue of a large family. Has occasionally consulted me for three years back, for complaints which indicated great weakness and irritability of the heart and lungs, having been subject to quick, hurried, and difficult respiration, attended frequently with palpitation, or *fluttering*, as she termed it, of the heart, increased on bodily exertion or emotion of mind. Of this date I find the following memorandum in my case-book: "Symptoms of hydrops pectoris." A blister was directed to be applied to the chest, and some expectorant and diuretic medicines were prescribed, which soon removed her complaints.

June 23, 1798.—I find her again on my report book, with the same symptoms, for which similar remedies were prescribed.

July 13.—No relief from the last medicines. In every respect worse. Respiration very much interrupted, especially on motion, or on lying down in bed. Pulse quick, feeble, and extremely irregular; urine very small in quantity, and high coloured, with sediment; ankles and legs œdematous. Supposes herself in the fifth month of pregnancy; and there is every reason to suspect the fœtus has been dead for a fortnight, in which period her complaints have made very rapid progress. Has for some months suffered great mental anxiety and uneasiness, from causes unnecessary to state here; to which her present illness is to be attributed.

℞. Dig. purp. fol. nostr. pulv. gr. j. Confect. arom. q. s. ft. pilul. nocte maneq. cum mistur. infra præs. coch. No. ij. s.

℞. Fol. dig. purp. incis. ʒj. Infunde in aq. ferv. ℥viij. per hor. iv. dein cola.

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℞. Infus. colat, ℥v. Spt. juniper c. ℥ß. Spt. æth. nitr. Spt. æth. vitr. c. sing. ʒij. M.

Particular injunctions were given to discontinue the Foxglove as soon as it produced any of its unpleasant effects.

July 17.—I heard no more of her till the evening of this date, when my immediate attendance was desired. I found her retching violently, and bringing up at times a dark coloured matter, like coffee grounds; the extremities cold; the pulse extremely small, fluttering, and irregular; had frequent faintings, or, to use the language of those about her, "they could not keep life in her;" and the body was covered with cold sweats. She had been in this state for several hours: the cause of these alarming symptoms was sufficiently obvious. On inquiry, I found she had experienced immediate relief from the medicines; that the quantity of urine was very much increased; the swellings nearly gone, and that she was considered as mending very rapidly till this morning, when the stomach began to be disordered. I found also that she had been under the influence of the Foxglove nearly two days; yet, in direct contradiction to the directions rigidly enjoined, she was desired to continue it this morning! it was in vain that relief was attempted through the medium of the stomach; for every thing liquid, even in the smallest quantity, was immediately rejected. By an anodyne glyster, warm anodyne embrocations rubbed into the epigastrium, abdomen, and feet, small pills of solid opium with confect. aromat. all the urgent symptoms subsided in a few hours, and I had the pleasure of leaving my patient in the morning quiet and composed.

She continued gradually to mend from this time till about a fortnight after, when she miscarried of a fœtus which bore evident marks of having been dead at the time she apprehended. The water now began to accumulate in the chest and legs with unusual rapidity, and with it all her former distressing symptoms returned.—But although her strength was nearly exhausted, the water was speedily evacuated by the same means; and by a combination of tonics with diuretics, she was restored to health in a few weeks.—She has had no return of the dropsical symptoms, but has had occasional attacks of her former complaints, and always received advantage from medicine. On the whole, her health has been of late years improved.

In every point of view this case will appear interesting: an amiable woman has been rescued from a very alarming state,

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state, by a remedy which, by the most flagrant inattention, had nearly proved her destruction.*

The result of this case impressed on my mind so favorable an opinion of the foxglove, that I determined to direct my attention more than ever to it: from this period it has always formed a part of my remedy in dropsy; and my failures hitherto having been as much owing to the quality of the herb used, as to my ignorance of the proper dose and mode of exhibition, I furnished the practitioner with whom it was prescribed with a portion of the leaves out of my own garden. Having been absent from Britain when Withering's excellent work was published, and for some years afterwards, I had not the good fortune of seeing it at this time, and of borrowing light from so safe a guide.

CASE XXXIV.

March 30.—Mr. Partridge, of Bures, ætat. 49. nephew of the subject of case 17. Extreme difficulty in respiration, increased on the least motion, or on talking, attended for the most part with a peculiar wheezing noise. Has great tightness or sense of stricture and oppression across the chest. P. irregular, feeble, and frequent; it may be called a quick succession of weak irregular vibrations. Urine very scanty, high coloured, with a copious pink coloured sediment. Has been obliged to sleep in a chair for a fortnight, in consequence of which his legs, especially the left, are much swelled, and pitting on pressure. A small degree of tumefaction of the abdomen also. Whole face, especially the lips and nose, of a livid hue. Eyes dull, heavy, and expressive of great suffering; the conjunctiva somewhat yellow. Very little thirst. Appetite much impaired, as is his general strength. Was taken ill three weeks since with nearly all these symptoms, which have gradually increased since; of late very rapidly.

Has taken no medicine except a powder the 28th, which purged him violently, and a spermaceti mixture, his disorder

* Dr. M. has in this work pointed out with great accuracy, the dose of this poweful remedy, together with the most effectual mode of preparation and exhibition. He agrees with Darwin and others in preferring the infusion when the leaves of the plant have been recently dryed and preserved according to his directions.

In London practice, however, we think his tincture, which is kept at Apothecaries Hall, and by all the Chemists, a more certain preparation, as we cannot depend on the keeping of the leaves or powder in town, with the same confidence. The dose of the tincture is fifteen to thirty drops ter die. See our Journal, Vol. II. p. 123.

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order having been considered as gout, to which he has been subject, both in a regular and irregular way, from eight years of age, and which appears to be hereditary. The gouty paroxysms have at times been very severe, and the leg now principally swelled has suffered the most. Has lived temperately. No cough.

Appl. empl. canth. pectori.

℞. Dig. purp. fol. p. nostr. gr. viij. Zing. p. gr. vi. Conf. arom. q. s. ft. boli viij. Sumt. 1. sing. noct. et mat.

℞. Bals. tolut. ℈ij. Muc. g. arab. ʒij Mannæ ʒß. tere simul. aq. menth. pip. ʒvjß. Sp. æth. vitr. c. sp. æth. nitrosi aa. ʒiij. M. sumt. coch. tria 6tis. horis.

April 4.—Immediate relief from the blister; and in the course of the following day, the 31st ult. the urine began to flow in increased quantity, but still high coloured with sediment, and he was able to lie down in bed. On the morning of the 1st, had five loose watery stools; but nevertheless the urine continued to increase considerably, and became perfectly natural in appearance: in the course of the day the swelling of the legs was nearly subsided; when it began to lessen, in the morning, he complained of very acute pains in them. Breathing now perfectly free; yet he still complains of some tightness across the chest. P. much more regular. Water since last night less in quantity, and deposits a sediment, but he has drank less. Countenance greatly improved; appetite perfectly restored; and he sleeps as usual in bed. No sensible effect from the digitalis except in increasing the flow of urine, and once on the bowels. The weather so intensely cold that he is prevented from going out and deriving advantage from air and exercise.

Appl. empl. e cymino inter scapulas, et empl. canth. alt. pect. si urget dyspnœa, nec non.

℞. Dig. p. p. gr. xij. Zing. p. gr. viij. Conf. arom. q. s. ft. boli viij. Sumt. j. mane et h. s. u. a.

Pergat in usu misturæ ter ind.

April 8.—Being alarmed by the appearance of unusual symptoms he desired my immediate attendance. He complained of being extremely faint and low, with giddiness and imperfect vision since yesterday. These were evidently the effects of the digitalis, having taken the last bolus this morning. In other respects was sensibly amended.

Omitt. dig. sed,

℞. Decoct. cinch. ang. ʒvij. Myrrhæ ʒj. Tinct. gent. c. ʒiij.

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c. ʒiij. Sp. æth. nitr. ʒij. Kali pp. ʒß. M. sumt. coch. tria ter ind.

April 22.—Called on me to say that he continued in every respect free from dropsical symptoms; the legs being restored to their former state; the urine in full quantity; appetite good; and strength much improved, though the weather has been extremely unfavourable for his riding on horseback, as particularly enjoined. Both the plasters were applied, and the mixture persevered in since last report.

Was caught in a hail storm four days since, got wet, and has had some cough, with dyspnœa. P. irregular.

℞. Calom. gr. vi. Scillæ gr. iv. Digit. gr. x. Myrrhæ ℈j. Simul tere et adde g. asæfœt. ʒß. Extr. gent. q. s. ft. pilulæ xviij. Sumt. duas sing. noct. h. s.

June 8.—Again came to me. Says, that till a few days back he continued tolerably free from complaint; that his urine has diminished in quantity, with the usual sediment; that he has a slight cough, some difficulty in breathing, and a pain of the right side and breast. Looks well in the countenance, has no thirst; nor do the legs swell. Appetite and strength, however, somewhat impaired.

℞. Scillæ pulv. gr. x. Dig. purp. ℈j. Myrrhæ ʒj. Simul tere et confect. aromat. q. s. ft. pil. xxiv. Sumt. duas meridie et hor. viij. P. m. cum mist. seq. coch. iij.

℞. Infus. gent. c. ℥vij. Kali pp. ʒj. Sp. æth. vitr. c. sp. æth. nitr. a ʒiij. m. ft. mist.

Si urgeat dyspnœa iterum appl. empl. e pice burg. sterno.

The above symptoms were quickly removed, and he enjoyed his usual state of health till the autumn of 1800, when he again consulted me.

CASE XCIII.

June 17.—Early this morning my immediate attendance was desired on the Rev. Mr. ———, of ———, near Harwich. His age 51, of tall stature, naturally robust and muscular, but of late years disposed to corpulency. His symptoms were, extreme difficulty in respiration, which has for some weeks prevented him from lying down in bed, or from walking but with great deliberation: when going up stairs, has been obliged to rest some minutes to take breath, before he reached his chamber; and although propped up by pillows, nearly in a sitting posture, in bed, he is suddenly roused from sleep by a sense of suffocation, and extreme anxiety about the præcordia, which obliges him

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him to get up and walk about the room; of late this has happened three or four times every night, in so violent and alarming a degree, that his life has been despaired of; urine very scanty, of a dark red colour, but with very little sediment; pulse extremely irregular and intermitting; legs œdematous up to the knees, and readily pitting on pressure; tongue foul, with great thirst; no appetite; bodily strength much impaired; face and conjunctiva of a deep yellow tinge; and he brought up some yellow bile this morning. Bowels costive; memory much impaired, with giddiness, and confusion of ideas at times; constant drowsiness, amounting sometimes to stupor; hands and feet cold. Has not been addicted to intemperance in the use of intoxicating liquors, but in the habit of indulging very freely in large draughts of beer, both at meals, and at all times when heated by exercise. Has used much bodily exercise till of late years, when his habits have been sedentary and studious, frequently sitting up till a late hour.

For nine years has been subject to a peculiar uneasy sensation in the lower part of the abdomen, from the umbilicus to the pubis, for which he has been in the constant habit of using active purgatives three or four times a week, as the only means which, he fancied, relieved him.

About two years since, when stooping to measure timber, was suddenly seized with a giddiness of the head, and confusion of ideas, nearly amounting to a fit of apoplexy, for which he went to town, and put himself under the care of an eminent physician. It was treated as an attack of apoplexy, for which copious v. s. and cupping were frequently used. He returned to the country much reduced in flesh and strength.

The first symptom of his present complaint was perceived in February, 1806, when he was suddenly roused from sleep, and thought himself in the act of dying. He had another attack when doing duty, some months afterwards, and a third in December following: the pulse intermitted each time; recovered its former regularity after the first and second attacks, but has been more or less irregular since the third.

He has been attended by three physicians of the first eminence in town, and by one in the country. Their attention appears to have been principally directed to the affection of the head, and to the peculiar sensation of the abdomen, acknowledging they could do nothing for the disorder of the chest. The result of a consultation held by two

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two of them in town, in April last, was the recommendation of a seton in the neck, and mild inert palliative medicines. On the suggestion of Mr. Nunn, of Manningtree, the digitalis was once prescribed by one of them, but soon abandoned.

On the presumption that his complaints originated from water in the chest, Mr. Nunn and Mr. Silke his partner, who constantly attended, prescribed the digitalis in January and March last, with sensible advantage, as the pulse recovered its natural regularity both times: and Mr. Nunn reminding me of a case, apparently as hopeless as the present, in which I recommended the foxglove, with him, with complete success, lamented that the prejudice against it here was so strong, as to preclude him from prescribing it again.

On assuring the patient and his family, that the medicines I should recommend would produce no violent or unpleasant effects, they left me to proceed as I should judge fit, unfettered by any restrictions. Had a blister applied to the chest, and a calomel and squill bolus last night, which were the means of procuring some disturbed sleep.

℞. Calom. gr. vj. Kali vitr. myrrhæ aloes a. gr. x. Tere simul. et conf. ar. q. s. ft. pil. viij. quamp. sumat ij. et repr. p. r. n.

℞. Calom. gr. jß. Scillæ p. gr. j. Crys. tart. p. ʒj. Conf. ar. q. s. ft. bolus sing. noct. s.

℞. Inf. dig. p. (ʒjß. ad ℥viij.) ℥j. Sp. æth. nitr. ʒß. T. cort. aur. ʒj. Kali pp. gr. x. Ol. m. pip. gt. j. M. ft. haust. mane, mer. et vesp. per dies tres, vel iv. s.

He was directed to refrain from beer, but to drink freely of negus or gin-punch, acidulated with crystals of tartar; to have a few glasses of Madeira daily; and when his appetite returned, to have solid nutritive food, instead of the slops to which he had been accustomed. Mr. Nunn was requested not to continue the digitalis beyond the third day, if it should occasion the slightest nausea or unpleasant effect; and to substitute the infus. gent. c. for it; at all events not to persevere in it after the fourth day, having appointed to see him on the fifth.

June 22.—From voiding only half a pint of urine daily, for some time prior to my first visit, he passed, by measure, five pints every day after the first 24 hours, with proportionable relief of every symptom. For two days had been able to lie down in bed, and enjoyed sound uninterrupted refreshing sleep: swellings of the legs gone; appetite and strength returning; was able to walk without assistance

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sistance an hour and a half yesterday in his garden. Has had occasion to use the pills only once, the boluses having procured two motions daily without griping. No sickness or any unpleasant symptom from the foxglove. Took one draught to day with the infus. gent. c.

Pergat in usu haust. cum infus. gent. c. vice inf. fol. dig. repr. boli sing. noct. h. s.

June 29.—By previous appointment came twelve miles to meet me: has continued to mend; rides out every day in an open chaise, and drives himself; appetite craving, and he has indulged it too freely, especially at night, in consequence of which his stomach was disordered one night; and he has complained of giddiness and confusion of ideas at times.

Appl. empl. canth. nuchæ.

℞. Inf. gent. c. ʒjx. T. cort. aur. ʒj. Acidi nitr. gt. jv. ad. vj. m. ft. haust. cum pil. infra præs. No. ij. s.

℞. Myrrhæ, columb. p. a. ʒj. Zing. p. gr. x. Ol. m. pip. gt. jv. Syr. zing. q. s. ft. pil. xjv. Repr. boli u. a.

July 8.—Came seventeen miles to meet me, as previously agreed upon, and drove himself; continues to improve progressively; appetite more natural; and digestion good; head much relieved by the blister; has transacted business, and written letters, which required mental exertion. Walked up a hill yesterday a mile from home, and back again without inconvenience. Has recovered his natural florid complexion. Medicines to be continued, the draughts twice a day only.

July 22. Came as before to meet me. The day being excessively sultry, and being exposed for near four hours to an intense sun, I was surprised to find him very little affected by the heat. On the 13th he complained of great pain in the lower part of the abdomen, and in the course of the evening had three motions, consisting chiefly of dark grumous blood and a gelatinous like substance; the last without any fæculent matter. He mentioned with much satisfaction, that he has been since free from this painful complaint, which had more or less constantly harrassed him for nine years; and that for three nights the bowels performed their functions regularly, without any assistance. The gums being slightly affected, directed the boluses to be taken only occasionally. Having been formerly recommended the shower-bath, I permitted him to try it (especially as the weather had been intensely hot) every other morning. Acknowledges himself very much improved in every respect, and talks of making an excursion

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sion to Westmoreland in an open carriage. Was desired to go on as before.

It may be sufficient further to remark, that from this period Mr. H. either continued to meet me occasionally, or that I visited him at his own house, for some months. He became at length extremely impatient under the restraints imposed upon him; and notwithstanding every endeavour on the part of his amiable lady, the paroxysms of passion, when denied whatever he called for, were such as to render it impossible to keep him within bonnds; yet all that was possible that the most tender and affectionate regard could dictate, was done by her. She persevered to the last, and to the last the remedies did not fail to evacuate the water, and afford relief. His head, however, became more and more affected, and the bilious attacks more frequent and violent. He died on the 16th of July, 1808; yet the water was completely evacuated not many days before.

CASE XCIV.

August 10, 1800.—Mr. Clover, a miller, æt. 53, of very short stature, thick make, and corpulent. Has worked hard, lived well, but not addicted to excesses in drinking. Has orthopnœa of the most distressing kind, even without any motion or exertion, being obliged frequently to raise his head suddenly, and to elevate his shoulders and arms at the same time, while he makes several laborious efforts to draw his breath; inability of lying down in bed for a fortnight, before which he could only lay on the right side. Is frequently roused from sleep suddenly, though he is supported by pillows in a sitting posture in bed. Urine high coloured, diminished in quantity, but without sediment; legs anasarcous to the knees, hard, resisting, and of a dark red colour; pulse full, and occasionally an intermission during the paroxysms of orthopnœa; face livid; no cough, pain of the chest, numbness of the shoulders, nor swelling of the abdomen; a peculiar oppression not only of the epigastrium but of the whole body; great debility and no appetite; much thirst. Disorder commenced about December last, without any evident cause, and has been gradually increasing since. Has used various medicines without advantage, and was prescribed the following lately by a physician of extensive practice, who attended him.

℞. Fol. dig. p. ʒß. Aq. ferv. ℥xij. Infunde et ft. infus.

℞. Infus. colat. ℥j. Sp. æth. vitr. gt. xx. Tinct. opii c. ℥ij.

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℈ij. Aq. ʒij. Olei m. pip. gt. ß. M. ft. haust. 5tis. vel 6tis. horis s.

No sensible effect or relief was produced. I prescribed as follows.

℞. Infus. dig. p. (ʒiß. ad ℥viij.) ℥j. Sp. æth. nitr. ʒj. Kali pp. ℈j. M. ft. haust. ter ind. s.

Appl. empl. canth. pectori.

℞. Calom. scillæ a. gr. j. Opii gr. ß Crystall. tart. p. gr. vj. Muc. g. Arab. q. s. ft. bolus sing. noct. h. s. s.

I consider the case in every respect as very unpromising.

August 15. In thirty-six hours after beginning the medicines, was sensibly relieved, and has continued to mend ever since, the urine flowing in full quantity, and the breathing and every other symptom being proportionably relieved; though he has taken his medicines very irregularly. Pergat, U A.

Aug. 23. Improving in every respect, gaining strength, and able to walk out daily; lies down in bed, and breathes in every posture with freedom; more so in bed than in any other. Was directed to persevere in the same plan.

The water was repeatedly evacuated, and the symptoms were relieved by these medicines, but he relapsed soon afterwards, and at length laying aside all medicine, the disorder increased, and proved fatal, not many months after my first visit.

Though this case was omitted in its proper place, yet it is thought worthy of insertion here, not only as being in itself interesting, but as shewing the inert practice too generally adopted in this disease.

The combinations and formulæ most approved of by Dr. M. in his work, are,

1. The standard infusion, viz. ℞. Dig. purp. fol. incis. ʒiss. Canellæ alb. contus. vel zingib incis ℈j. Aq. ferv. ℥viij. Infunde per horas iv. in vase operto; dein liquorem effunde.

If the leaves be used as they are suspended in paper bags in a room in which a fire is constantly kept in winter, without farther drying, which should always be done for infusion, the liquor will pour off perfectly clear, and save the trouble of straining. The stalks and large fibrous parts should be separated, and the leaves cut into small pieces.

2.—℞. Infus. dig. purp. ℥j. Aq. menth. pip. ʒiij. Kali pp. gr. x. ad ℈j. Sp. æth. nitrosi. vel sp. æth. vitr. c. ʒss. ad ʒj. M. ft. haustus bis terve de die sum.

3.—℞. Lin. camph. ℥ij. Sp. ammon. c. tinct. opii aa. ℥ß. M. ft. Lin.

This

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This liniment well rubbed upon the epigastrium or abdomen, I have repeatedly prescribed with immediate relief in violent sickness and vomiting, or acute pains of the bowels. The parts should be covered with hot flannel afterwards.

4.—℞. Dig. purp. fol. pulv. scillæ recent. exsicc. p. aa. gr. jx. Calom. gr. vj. Myrrhæ ℈ij. Crystal. tart. pulv. ℈j. Tere simul et extract. gent. q. s. ft. pil. xxiv. Sum. duas usque ad tres sing. noct. et mat. superbib. liquor. infra præs. cyathum vel libræ quadr.

5.—℞. Cryst. tart. pulv. ʒij. Solv. in aq. ferv. lib. j. add. rad. zing. incis. ʒß. Sacch. pur. q. s. Sp. juniper. ver. ʒiß. vel vini rhen. ʒiij. M. propinat æger quant hancce vel duplicem quotidie.

As soon as the patient begins medicine, the free use of this or some diluting drink, according to former habits, is directed as an absolutely necessary part of the plan.

6.—℞. Tinct. tolut. vel benz. c. ʒß. ad. ʒi. Muc. g. arab. vel ov. vit. q. s. ut miser. Infus. dig. purp. ʒi. Mell. scillæ ʒi. ad ʒij. Sp. æth. vitr. c. gtt. xxx ad ʒi. Kali pp. gr. x. ad ℈j. M. ft. haust. ter ind. s.

The author is not ignorant that here a kali acetat. may be formed, but the kali pp. will still predominate.

7.—℞. Fol. dig. purp. pulv. Scillæ pulv. aa. gr. i. Calomel. gr. ß. ad gr. j. Cryst. tart. ℈j. ad. ʒß. Syr. zingib. q. s. ft. bol. sing. noct. et mat. s. Besides this, No. 5 should be given freely.

8.—℞. Infus. gent. c. ʒix. Kali pp. gr. x. ad ℈j. Tinct. cort. aur. ʒiß. Sp. æth. nitr. gtt. 40 ad ʒi. M. ft. haust. ter ind. cum pil. infra præs. No. ij. s.

9.—℞. Ferr. vitr. kali pp. aa. ʒß. Myrrhæ ℈ij. Simul in pulv. subt. tere et extract. gent. q. s. ft. pil. xxiv.

10.—℞. Calomelan. gr. ij. ad. iv. Crystallor. tart. p. gr. x. Zing. pulv. gr. v. probe simul in pulv. subt. tere et syr. Zing. q. s. ft. bolus h. s. s. et seq. matutino degir. æger. haust. infra præs.

11.—℞. Infus. sennæ tart. vel inf. tamarind. cum senna (Ph. Ed.) ʒx. Mannæ ʒj. Tinct. sennæ vel jalap. ʒij. ad ʒiß. M. ft. haust mane sumendus.

12.—℞. Tinct. benz. c. gtt. 40 ad 60 vel tinct. tolut. ʒi. Cum muc. g. arab. q. s. redact. Myrrhæ gr. x. Aq. m. pip. ʒi. æth. nitr. vel vitr. c. ʒi. Kali pp. gr. x. M. ft. haust. ter ind. s.

13.—℞. Resin. jalap. calomelan. zingiber. pulv. aa. gr. ij. ad iv. crystall. tart. pulv. gr. v. ad x. simul tere et syr. zing. q. s. ft. bolus h. s. s.

To

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

A Disease which, I apprehend, is not attributed peculiarly to the British climate is the Plica Polonica. Being a few days ago in the shop of Mr. Rogers, printer, of this town, he presented to me for inspection a plica 9 feet long, which is now in his possession. It instantly struck me, that a malady of this nature, not peculiar to our country, existing under the influence of British atmosphere, was a most singular instance; it attracted my attention, and induced me to investigate into the particulars of the case.

In the year 1796, Mrs. Clarke, who lived in the Rectory House, Great Saxham, Suffolk, said that her mother, who was the subject of this case, had an elf-lock.* After it grew to the above length, it was accidentally trod upon and detached from the head, without producing any constitutional affection.

It seems that the excellent observations on plica in your Journal for March, by M. de la Fontaine, are substantiated by experience; he says, that it is dangerous to cut a true plica in its first stage, and when adhering to the head; we must see new sound hairs springing up, which push it downwards, before we can execute this operation with any beneficial result.

I presume that the disease which existed upon the subject in question, must have gone thro' its various changes previous to this accident, or else it would have been productive of ill consequences, epilepsy, &c. as is stated in M. Theder's letter to the author on the above subject. It appears by the information I obtained, that this plica was perfectly distinct from the sound hairs, as is described by M. de la Fontaine, when in a fit state for extirpation; but what is singular, it re-appeared, and grew to the length of 5 feet, at which time she was affected with the variola, which terminated fatally. The plica did not seem sensible to the touch, as she was in the habit of running a comb thro' it to keep it together, and she used to consider it as a great ornament. Such is the fact, that this disease has existed in this neighbourhood; whether it originated from contagion or neglect of cleanliness, I was not able to learn.

Newmarket, April 10, 1810. I am, &c. E. L. KNOWLES.

P.S. Does a spurious plica ever grow to the above length?

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* I understand that the peasants call it by this name.

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Observations on Convulsion, as a Consequence of Disease, illustrated by Cases. By Mr. JOHN HOWSHIP, Surgeon.

NO part of the animal economy has been so frequently the subject of fanciful speculation as the brain; an organ, the general purposes and offices of which may be deduced from the consideration of its situation and connections. Thus far we may have proceeded, but no further; for whenever we attempt to go beyond this line, and enter into the supposed manner in which the material and immaterial agencies operate reciprocally upon each other, in those various movements of the animal machine, in which volition is concerned, we soon find ourselves surrounded on every side by a maze of perplexity, where every fancied advance only proves how readily we deceive ourselves, and where even conjecture cannot find the least plausible foundation.

In considering the circumstances that indicate the due performance of the functions of the brain, in its healthy condition, and contrasting these with the numerous train of symptoms by which the presence of disease is pointed out, the most embarrassing conviction is, that we have repeatedly known that in cases where before death, every external sign of derangement in the structure of the brain has existed, examination afterward has decidedly proved the non-existence of any visible alteration, either in the structure, or even actions of the organ; and on the other hand, where no external mark or sign of particular disease has been observed to occur in the life-time of the patient, the most extensive state of disease in some part of the brain has been after death detected. It is our first duty to improve upon what we know, and the most important conclusion that can be drawn from such considerations as the above, certainly is this, that as the difficulties which here interrupt our progress are in their nature almost insurmountable, the ardour of our pursuit should be still further quickened; and that as the impediments to be removed are in themselves very considerable, so should our perseverance be taught to increase, until it shall rise even superior to every difficulty.

The treatment of convulsive disorders, supposed to depend on some derangement either in the structure or the functions of the sensorium, has at all times necessarily been governed according to the particular theory of the disease and its phenomena, that have been preferred by the

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practitioner. Upon this he has reasoned, and upon this he has built his practice, and in many, or in few instances, it has still been attended with success. In many cases of such disease terminating fatally, it has been proved by dissection, that a general state of convulsion has been produced and kept up in the habit, by the growth of some diseased substance within the cavity of the cranium. In other cases again, the same series of symptoms have arisen, and after continuing for a given length of time, they have disappeared, and from the good fortune of the patient in recovering, the true result of the disease has never been known. Here is a door opened to conjecture, and from the fallacy of reasoning in such obscure inquiries, it is necessary that every opinion should be formed cautiously.

We have known of instances where tumours have formed within the skull, and where, as the disease increased, the oppressed portion of the brain has been from time to time removed from the situation of the tumour, by the action of the absorbent vessels; this action being set up as a provision, in order that by the sacrifice of a small part to the good of the whole, the circulation and functions of the general mass of the brain should still be maintained in all that undiminished freedom essential to the health and activity of the body.

We have seen instances, where not one, but many tumours, some of very considerable size, and probably of scrofulous nature, have been produced upon every part of the dura matral covering of the brain, and even in such a case as this, from the persevering action of the absorbent vessels in and about the cortical substance of the brain, the removal of the one material has kept pace with the deposition of the other, so that the functions of the sensorium were to a certain degree still carrying on, and life was still prolonged, until, from the continuing increase of the disease, the condition of the brain became at length so feeble and imperfect, that it could no longer impart the energies essential to life, and the complaint then soon destroyed.

In the consideration of the most proper treatment in epilepsy, as being one species of convulsion, very great diversity of opinion has prevailed; one class in the profession maintaining that it is to be cured only by diminishing and lowering the actions and powers of the constitution, and by withholding all those medicines and applications that can in any way produce excitement, either in the vascular or nervous system; while another class, that depletion is bad, inasmuch as convulsion arises as the consequence of an irritable

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ble state of fibre, and that whatever diminishes strength, increases mobility, and thereby confirms the very disorder which we intend to remove. Upon the same principle, that of allaying the increased irritability in the habit, a regular course of opiate medicines, under prudent conduct, is the most advantageous practice of any.

Upon both sides of this question, much has been said, and indeed the arguments brought forward in favour of each practice have been so ingeniously supported, and so powerfully contended for, that it becomes very difficult to say positively which, or if either of them, are altogether wrong; probably, with certain limitations, each may be right and proper in particular examples of these diseases. At all events, this conclusion must be just, and is at the same time very important, that while so much obscurity still dwells upon this branch of medical study, while our acquaintance is still so partial with most of the disordered actions to which the brain is subject, it is evident, that the most secure and firm foundation that can be laid for the advancement of our knowledge in these complaints, will be secured by our watching carefully, and setting down correctly, all the circumstantial histories that can be traced at the sick bed-side; if this task is performed with fidelity and truth, our stock of useful information must increase, in spite of every obstacle to its growth, and it will increase by the heaping up of a store of the most valuable of all materials.

A Case in which Convulsion, connected with great Constitutional Debility, was treated by the depleting System.

Mrs. Cowan, the wife of a soldier, in the 82d regiment of foot, a very small and delicate figure of a woman, 28 years of age; from a combination of the most distressing incidents was exposed with an infant at the breast, for several days journey, in the severe winter of 1808. She had to pass through Lincolnshire, at a time, when the inclemency of the season had left the roads covered several feet deep in snow. This poor woman was several times, while journeying, so deep in the snow, that she very much doubted if she could ever get through it. Just before this, she had suffered shipwreck, and at the time when the vessel struck upon the rocks, she received so severe a shock from the alarm, that it was with difficulty the humane exertions of those around prevented her from fainting. Since that time, she said she never had been exactly well in her head. While on the journey, her peril was so great, that

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she was sometimes obliged to lay down her little infant for a time upon the snow, in order that her exertions might be made with more freedom to extricate herself.

She reached however the town of Scarborough in Yorkshire, the place to which she was going, and being restored to her husband and family, she made no particular complaint for some time after. Her disorder then seemed to be deficient strength in the circulation and animal powers. The pulse was extremely small, low, and slow; the skin cold and very pale; the tongue clean and moist; the appetite very trifling. There was some head-ach, and she complained that she could not rest well at night, but was without refreshing sleep.

In order to restore, if possible, the proper balance of the circulation, and assist in the re-establishment of the external heat, very minute proportions of the tartarized antimony were directed in solution, to be frequently taken; and the patient was requested to avoid those constant personal exertions upon which the neatness, and indeed the existence of her family depended. This request was urged from the necessity of her own situation, but it was a desire with which it was ill in her power to comply. Although exceedingly feeble, she still continued to scour, wash, and do all the work of her family.

On the morning of Saturday, January the 14th, 1809, after very great exhaustion from labour, she fell suddenly down while passing over the step of her own door; a person who was near her, heard the fall, ran to her assistance, and found that she was entirely insensible. She was, as soon as possible, carried back to her bed, upon which she lay the whole of the forenoon; she was apparently in a tranquil state, as if asleep; respiration was continued with great freedom and regularity. The face was pale, sunk, and cold; frequent slight convulsive tremors took place, and these occasionally returned, for the space of two hours, when they altogether disappeared.

In the evening the pulse was at 70, and the tremors had returned with occasionally rather violent contractions of the muscles of the limbs, at which periods, the pulse became perceptibly harder than before. In about half an hour, however, she came to herself, soon after the spasms had ceased; she opened her eyes, and complained of great and shocking pain in her head, attended with terrible shooting darts of pain passing through the eye-balls; she could not bear a candle to be brought near the bed, from its aggravating the painful state of her eyes. With the

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above symptoms, she now mentioned her having a constant roaring noise in her ears as if it thundered; her countenance was still sunk, and her complection paleness itself. Yet from her symptoms, notwithstanding her excessive weakness, it was pointed out to her that she must lose blood; the proposal somewhat startled her, but she made no objection to what was advised. The arm was bound up for some minutes before, with some difficulty, a vein was perceived; it was sufficiently evident to the touch, but so small, and so far below the surface, that it was not discernable to the eye. This vein was opened, and about three ounces of blood were drawn; a vein in the other arm was next opened under the same circumstances, and with the same effect; so that by this operation, she lost about six ounces of blood; this to her was a considerable quantity, and she found herself materially relieved; she said she was much better, but that she was still "very bad."

An hour after she had been bled, while laying very comfortably warm in bed, she was suddenly seized with a rigor and shivering, exactly resembling the first stage of an ague fit. The pulse was at this time very small but hard; and the skin very pale; she was, soon after this, sensible; and said again, that she was "very bad." This state of tremor did not perfectly subside before half an hour had passed over, when it ceased. Her head was now directed to be shaved, and covered with a large blister; after this application had been made, she was ordered to take thirty drops of the tincture of opium in a draught, and this was repeated soon afterwards, which procured her some sleep.

Sunday morning, she was something better; the tartarised infusion of senna was directed, and repeated till it produced two motions; towards the evening of this day she found herself much better, but on a sudden and very unexpectedly, her eyes were closed; her limbs became rigid; and she was shaken by a convulsion decidedly more violent than ever. Her body was at some moments raised up from the bed by the violence of the fit. At this time her pulse was seventy-two, and small. The convulsion subsiding, she soon came to herself, and upon being spoken to, said she had still the same loud voice in her ears, and the same extreme sensibility to light. In half an hour more, she was much better, and spoke quite distinctly and rationally, and explained that the pain in her head was very much relieved. Before the bleeding, this was of a dull, stupid, heavy, and oppressive kind, but it was now of another

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character, being sharp, and frequently darting about the brain. The most important point of relief, however, as she herself expressed it, was, that now her mind and judgment was much relieved, and more clear than before. There was no heat about the skin, nor the least thirst; she this day took the saline mixture frequently, with ten drops of the tincture of opium in each dose.

On Monday morning, January the 16th, there was occasional light wandering and tendency to delirium; she said upon being examined, that she had now no noise in her ears, nor the least pain whatever in her head, but was in every respect quite easy. The pulse had risen to 84; the saline mixture as the day before, was continued.

In the afternoon she was perfectly sensible, without even the least disposition to delirium; but precisely at the same hour as the day before, she was seized with slight spasms, the eyes now open and fixed in their sockets; in this state she was perfectly insensible and very pale; she soon after recovered again.

In the evening she was quite sensible and clear; the pulse being soft and regular, at 75; the skin moist and perspirable. A swelling of the face has come on during the day, productive of much pain, and very tender. The light is no longer distressing to the eyes; the roaring sound, as of thunder, is no longer heard; the pain in the head nearly gone.

This morning she said that she felt "ill" all over her, but this evening she was much better, having neither heat nor thirst. She was directed through the day to go on as before with her saline medicines, and to have her feet immersed in warm water at bed-time.

Tuesday morning. She had passed a good night, and slept very well; and upon the whole was very much improved. At noon the light delirium returned for a time; her mind wandered, as it were, imperceptibly; without the least sympathetic change in any other respect. In about an hour this subsided, without having been attended with any degree of spasm, or the least general indisposition. During the course of the day she complained several times of the pain in her face.

Wednesday, January the 18th, she was very restless; got no sleep the night before; she described a sensation of pain very distressing about the heart, "as if something was gnawing it." The bowels were very regular; the saline mixtures as before were continued; and a blister directed to be laid upon the pit of the stomach.

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From this time she continued to improve daily, her appetite returned in some measure; so that by taking nourishment in light forms she was hourly gaining ground.

This state of convalescence continued till the Wednesday following, January the 25th, when she suddenly fell off again. On the day before, she had felt some little pain in her head, but did not consider it worth mentioning; but on this day it was much worse, indeed, so severe, that she could scarcely sit up. In the evening she had the same pain in an aggravated degree, add to which she could not now bear the light to be brought near her eyes. Upon examining her wrist, it was found that the pulse had again sunk down as before her convalescence, from 80 in the minute to 70; the pulsation was rather hard than not; she complained of sickness, and several times urged without effect, to relieve her stomach by vomiting; she had no thirst; her skin was natural, and bowels regular. She was ordered the saline mixture every hour, and to have her feet immersed in hot water at bed-time.

On the next day, Thursday, she was again much better, and was nearly relieved from the pain in her head. She was reduced to a state of excessive lowness and debility, but it was necessary to be very cautious, in the adoption of any measures for the recovery of her strength; for it should have been before mentioned, that during the week of her improvement, and while she was perfectly free from her complaints, she had been allowed to take in very minute proportions, a light infusion of bark, and it was to this circumstance that her present relapse was attributed.

On Thursday evening she was ordered to take an ounce of the castor oil, to have her feet bathed, and to take her salines every hour during the night.

From this time she continued to mend uniformly, till, on Sunday, February the 5th, she was seized while scouring out the room, with terrible shivering, so severe, as if cold water had been pouring in a stream down her back, and this was attended with very excruciating pain in her head, and in all her limbs pains also.

By confinement, and a return to her former treatment, for a few days, she was again relieved, and advised to be more cautious for the future, in exposing herself to cold. For some time after this illness, so great was her general state of debility, that she complained of her legs swelling towards night.

For the improvement of her appetite, which was still very deficient, an infusion of the flowers of chamomile

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was recommended, this not being so objectionable as the more powerful tonics. She for some time persevered in the use of this medicine, and gradually recovered her health altogether.

Mill Street, Hanover Square,
March 14, 1810.

(To be continued.)

A CASE of ABSCESS of the BRAIN.

ROBERT CLARKE, aged 50, a strong and powerful man, received an injury on the head by a fall, September the 12th; he applied immediately for surgical assistance, and was bled and purged, but the symptoms not being relieved, a blister was applied over his head, which did not afford the least relief. He was then sent to St. Thomas's Hospital, and was taken in, October 26th, 1809, six weeks after he had received the injury. At this time there was a complete paralysis on the left side of the face and of half the tongue, with a numbness in the cheek, and a faultering of articulation; he complained of great pain at the top of his head, on the side which was not paralytic.

Oct. 27, I ordered him a cathartic, and next morning Mr. Birch made an incision upon the part where he described the pain to be seated; after a few days, a considerable discharge took place, and he was much easier; he was kept upon the milk diet of the hospital, and occasionally took aperient medicines. When the wound was nearly healed, he again complained of the return of the pain in his head. Mr. Birch then ordered him pills with gamboge to be taken every night, and directed me to make a crucial incision through the scalp and pericranium. When these incisions suppurated, he again experienced great relief.

By the 3d of December the pain had left him, and the paralytic affection of the cheek and tongue entirely disappeared He seemed lively, and often wished to be discharged from the hospital. In this state he remained nearly two months, viz. till January the 28th. At this time the discharge from the wound was great, and when wiping off the pus I discovered a small hole, which appeared to penetrate both tables of the parietal bone, through which pus was thrown out by jerks; he did not complain of any symptoms which denoted matter upon the dura-mater; the caries extended, and exfoliation was the consequence; after

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after this, about three days before his death he was seized with cold chills and violent pain in his head; the sight of the left eye became impaired, his pulse low, weak, and very frequent; and he expired Feb. 8, 1810.

Appearances upon Dissection.

Having laid bare the cranium, the parietal bone on the right side was found greatly diseased; ulcerations extended through both tables of the bone; this being removed, the dura-mater, corresponding to the diseased portion of bone was found ulcerated; the longitudinal sinus had been much inflamed and thickened, and its cavity was lessened; adhesions were found between the dura-mater covering the right hemisphere of the cerebrum and the falciform process. Upon dissecting off the dura-mater, an abscess was discovered in the posterior lobe of the right hemisphere of the cerebrum, containing about 2 oz. of brown coloured thick matter; this had extended into the right lateral ventricle to the infundibulum, and to the pituitary gland; the thalamus nervorum opticorum was of a dark colour, and likewise the corpus striatum. The brain, on the left side, was in a natural state, except that the plexus choroides was unusually distended with blood. Cerebellum natural.

That so much injury should have communicated within the cranium, and not produce more violent symptoms is worthy of remark.

Had the practice of making an incision through the pericranium, in order to remove the tension of that membrane been adopted directly after the accident, probably the extensive inflammation would have been arrested by the suppuration of the wound, and by the proper evacuations which should also have been directed.

The practice of a free incision on the injured scalp, which Mr. Birch insists upon as being necessary in almost every case, has been attended with such marked success in many violent injuries of the head, that I can venture to say, it should seldom or never be omitted. The hæmorrhage from the contused part is always beneficial; the suppuration of the wound is never followed by exfoliation; and it is only one line of incision, preparatory to what may be necessary, if the symptoms require a further examination of the injury.

I am, &c.

H. W. BAILEY.

St. Thomas's Hospital,
April 5, 1810.

To

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

ALLOW me, through the medium of your Journal, to suggest two or three observations, in reply to a Correspondent of yours, who signs himself "A Lover of the Profession."

Surely, he does not merit that title if he is so decided an enemy to Medical Reform. It has long been a matter of surprise to me, that a subject so important, and intimately connected with the welfare and interests of society at large, should so long have lain dormant, and no exertions made to root out ignorance from the profession, and crush the deadly reign of empiricism. And shall we now, at this enlightened period, find men who are still willing to tolerate these abuses, and attempt to extinguish the kindling sparks of reformation?

But I sincerely hope that the feeble efforts of a few individuals opposing the proposed plan, will not in the least diminish that laudable spirit of exertion which has characterized certain members of the profession. My sincere wish is, that their endeavours may be crowned ultimately with success, and that the *abuses* at present existing in the profession, may be removed by the mild and judicious regulations of the *Senate*.

It is comparatively of little consequence to trace the origin of empiricism, or to ascertain whether, on the whole, the metropolis, or the country, suffers most by its pernicious consequences. It is sufficient to state, that evils do exist both in town and country of most alarming magnitude, and which call loudly for the interference of the Legislature. The influence of those *monsters*, water *Doctors*, is truly alarming; the most complicated legerdemain practiced by Sorcerers, is comparatively trifling to the dark and mysterious mode of operation they have recourse to on the credulous minds of their *votaries*. Worse, and still worse, perhaps, are the cheats daily practised by the Quacks of this great and enlightened capital; but there are practitioners who, though they would openly disclaim the name of empirics, and disavow the practice, yet demand the attention of the reformers; they are men who never have been regularly educated to the profession, and whose knowledge is next to nothing; but by their assurance and assumption, they impose on the minds of the credulous;

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lous; they suit themselves to their passions and prejudices, and naturally gain an ascendancy over them; these men, destitute of science, practising only from a knowledge of facts, commit numerous mistakes, and too many fall victims to their misguided practice. Your Correspondent says, in one part of his paper, "that it is now impossible for the ignorant man to escape detection." But I would ask him, of what avail it is to detect the man after he has maltreated his patient, or perhaps reduced him to that state from which the regular practitioner is not able to relieve him? The deed is then done, and perhaps the consequence is inevitable. I think your Correspondent may abandon all his fears, respecting an aristocracy originating from the source whence he supposes; it is not compatable with common reason to imagine, that endeavours to remedy abuses relating to the practice of medicine, and restricting the exercise of the profession to those sanctioned by regular examinations before authorized persons, is ever likely to create disturbances in the state,* when the ultimate end of the reform in agitation is the preservation of the health of his Majesty's subjects. I shall not intrude any further on the limits of your work, but leave these observations for the perusal of your Readers.

Yours, &c.

An Enemy to Empiricism in General.

Case of Strangulated Crural Hernia, operated on according to the Method of Don Antonio Gimbernat; with some Observations on the Treatment of Hernia; by John C. Warren, M. D.

(Read before the Massachusetts Medical Society.)

THE operation for the relief of Strangulated Crural Hernia has been formidable to good surgeons, because not well understood. Mr. Pott speaks of it with apprehension; and the method of performing it proposed by Mr. Benjamin

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* A lover of the Profession, appears to us only to have apprehended the establishment of an aristocracy *in the profession* which might be prejudicial to the public at large, as likely to be the consequence of the proposed regulations; not that they were likely to effect any change in the established ranks of society, or could create any *disturbance in the state.* Ed.

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Benjamin Bell seems so inadequate, that it must have been a difficult affair under his hands. An accurate investigation of the anatomy of the parts concerned in it has removed those difficulties, and dispelled those apprehensions. It may now be considered comparatively safe by the surgeon, who is acquainted with the works of Gimbernat and Hey, and the admirable production of Mr. Astley Cooper, and who is also practically versed in the anatomy of the parts. As this operation has not been practised here till lately, I have taken the liberty of laying a case of it before you, with the hope of its exciting attention to this subject.

Mrs. C. a lady residing fifty miles from Boston, had been affected with crural hernia sixteen years. On the 28th of January, 1807, from a slight cause, she was attacked with the symptoms of strangulation, which continued with increasing violence till the 4th of February, when I saw her. A small, quick, and weak pulse, tense abdomen, constant vomiting, and great tenderness of the diseased part, indicated that no time should be lost. Such efforts for the reduction by the taxis were made as the sensibility of the part allowed; and these proving ineffectual, the operation was decided on by us, and assented to by the patient.

The tumour was three inches long, and two wide; extending in the direction of the crural arch. Mrs. C. being placed on a table three feet and a half high, the legs hanging over the end of it, an incision, four inches long, was made across the hernia, at the termination of its inner third. This exposed the fascia, very thin, and requiring cautious dissection; after which the hernial sac appeared, and was opened at its lower part without appearance of water. When the sac was dilated, a dark coloured and apparently disorganized mass was seen; and it was not without frequent turning and examination, that it could be ascertained to be a ball of omentum enclosing a portion of intestine, which closely adhered together.—These were separated with some hazard; for the adhesion was so firm, the parts so absolutely of the same colour, and the intestine so closely invested on all sides by the omentum, that a momentary inadvertence might have allowed the intestine to be opened. Small portions of omentum were left on the intestine, rather than to incur an unnecessary risk in separating them. The intestine was then examined. Although it was very livid, yet as it possessed sensibility fully sufficient to prove the existence of life, an attempt was

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was made to return it; but the stricture was much too narrow to suffer this to succeed. The obstruction, which first presented, was formed by the *falciform process* of Mr. BURNS. When this was cut, the finger passed higher up to a stricture, produced by the internal edge of the crural arch, and the third insertion of the external oblique muscle. The tip only of the finger could be pushed into this stricture, by using a force somewhat greater than one would employ without its being indispensible. Then, the intestine being retained on the back of the finger, the curved bistory was insinuated on the fore part; the insertion of the external oblique cut toward the pubis; and, the knife being withdrawn, the finger passed into the abdomen. The intestine was then returned; but the omentum being enlarged, hardened, and conglomerated, a portion eight inches long was cut off, and a small ligature passed through the remainder, to retain the bleeding vessels at the mouth of the sac. Three ligatures were made through the skin, the wound was dressed with adhesive plaster, firm compresses, and bandage, and the patient laid in a state of ease and tranquillity, compared to that before the operation.

In two or three days some increased tension of the abdomen succeeded, and was relieved by the applications of the attending physician, Dr. S——. No other accidents ocurred, and Mrs. C. recovered a state of more perfect health than before; which she has since continued to enjoy.

OBSERVATIONS ON THE TREATMENT OF HERNIA.

As the improved modes of practice, founded on the valuable observations of the celebrated Mr. CLINE, and on those of Mr. COOPER and Mr. HEY, are not yet generally diffused, I beg the favour of being allowed to add to the above detail some remarks on the treatment of hernia.

The Spanish surgeon, GIMBERNAT, tells us, it has been computed, that an eighth part of the human species is affected with hernia. So little attention has been paid to this disorder, that it is difficult to form an opinion of the proportion in this country. It probably does not exceed one in fifty. Many suffer without suspecting it, especially females; numbers of whom, affected with a small, almost imperceptible tumour in the groin, are little aware that it constitutes a derangement, which if neglected, may produce a painful disease and death. It is here well known, that females, supposed to be affected with *bilious colic*, have

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have often concealed the existence of an abdominal tumour till too late, and perished miserably from a *strangulated hernia.*

The hernia, to which our attention is most commonly solicited, is the *inguinal hernia of males* in a state of strangulation. The treatment of it differs from that formerly employed. The old practice of raising the patient and shaking him by the heels, of using violent pressure to reduce the tumour, and of administering powerful cathartics, are now known to be unavailing, dangerous, and fatal. Correct anatomical and pathological views have given rise to the following methods.

1st. Let the patient affected with strangulated hernia be laid upon a bed, his head and pelvis a little raised. Let the feet be drawn toward the trunk, so as to elevate the knees, which should be in contact. The surgeon, standing on the side where the hernia lies, grasps it with one hand, makes a pressure toward the stricture, and with the thumb and a finger of the other hand moves from side to side the portion nearest to the abdominal ring. This process may be gently continued for half an hour.

2d. Should the TAXIS fail, it is advisable to take away blood in sufficient quantity to cause a general relaxation of muscular action, and, at the moment this happens, to renew the taxis. Blood letting may be repeated in co-operation with the other remedies.

3d. Before the muscles recover their action, apply to the hernia ICE, or if that be not procurable, ETHER, or COLD WATER.

4th. The INJECTION *of* TOBACCO is a powerful application. This should be used with some caution. Mr. COOPER relates a fatal case produced by the use of one drachm of tobacco. An empiric in this place, employing it more freely, destroyed his patient in fifteen minutes. The injection should be prepared by infusing a drachm of tobacco in a pound of boiling water for ten minutes. If the subject be of an irritable habit, half of this should be injected at first; but if the whole quantity do not produce symptoms of relaxation, another dose should be administered. This remedy produces distress, and appears to have the inconvenience of being often expelled, before it can act upon the system. When this has happened, the addition of eighty or one hundred drops of tincture of opium has been serviceable in effecting the retention.

5th. The WARM BATH has not perhaps been often successful after the injection of tobacco had entirely failed; but

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but it merits a trial. The temperature of the bath should be somewhat higher than that of the human body; and the space of time for bathing half an hour, which is long enough to afford all the good effects peculiar to the warm bath. The local application of cold may be conjoined.

6th. OPIUM is frequently a valuable remedy. It may be employed either merely to alleviate pain, or to effect a reduction. For the latter intention it is conveniently given, during the night, in repeated doses, while the other remedies are intermitted. In one case twenty grains taken in the course of a night produced a return of the hernia.

When these prove ineffectual, it does not seem advisable to exhaust the strength of the patient by other applications. The operation is now the only remaining resource, and to this recourse should be had, perhaps as soon as the others have been fairly tried; for although it may succeed at the end of a week, as in the case above related, yet I have seen it prove ineffectual at the end of forty-eight hours; and the disease has been known to be fatal in twenty-four hours.

After the reduction, the patient should be advised to put on a TRUSS, and not to hazard the return of his complaint by relinquishing it within a short period. It has been usual to apply the truss upon the abdominal ring only; a practice founded on an erroneous idea of the egress of this hernia; for it does not issue from the abdomen opposite to that ring, but comes out through a fascia two inches above the ring, descends and piercing the tendon of the external oblique, appears at the external, or abdominal ring. The place therefore, where a truss should press in common cases, is at two inches, or an inch and a half, above the abdominal ring, toward the anterior superior spinous process of the ilium, or about midway between the os pubis and that process. Mr. CLINE first suspected the existence of hernia above the abdominal ring, as I think, from seeing a man perish with the symptoms of strangulated hernia without an external tumour. Mr. COOPER has dissected these parts, discovered the internal ring, and perfectly demonstrated this interesting part of anatomy.

To

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

ANN WHITE, a stout young woman, walked with her companions, on Wednesday October the 17th, 1809, from Selby fair to Barmly, a distance of seven miles, where she resided, apparently in good health and spirits. She arrived at home about two o'clock in the afternoon, and was observed to be unwell about four, complaining of a violent pain at her stomach, and vomiting frequently; she was afterwards much purged, and all the time desired to have repeated draughts of water, which I believe was warm when taken; she had no medical attendance, and died about two o'clock in the morning. It being afterwards suspected that she had taken, or some person given her, poison, an inquest was held on Saturday the 21st, about noon, when my partner Mr. Wikeley, and myself, were suddenly summoned to open the body. We found it free from putrefaction, not exhibiting any external marks of disease; neither did any material morbid appearances present immediately on opening the chest and abdomen. There were a few red patches upon the peritonæal coat of the stomach; the intestines externally shewed inflammation, though not to a high degree.

The stomach, previously tied at both ends, was taken out of the body; it contained about half a pint of fluid, of a reddish brown colour; the interior of the stomach, and also of the œsophagus, shewed high inflammation; the villous coat of the stomach was destroyed, and numerous portions of it, which had separated, were found in the fluid; other portions of different sizes, some about the size of a shilling, and isolated; others larger, still adhered. The parts attached were of an ash colour; felt hardish, as if corroded by a strong caustic. Upon *all* these portions of membrane, a white powder was both visible to the eye, and palpable to the touch.

The contents of the stomach were preserved, and submitted to chemical analysis.

The liver, the lungs, and the heart, appeared sound and free from inflammation; a few ounces of water were found in the pericardium. The internal surface of the intestines, so far as they were examined, was highly inflamed; the intestinal canal was not, however, examined through its whole course; many circumstances, unnecessary to mention,

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mention, concurring to prevent the dissection from being carried so far as could be wished.

The history of the case, the state of the œsophagus, stomach and bowels, and the appearance of the white powders, justified the opinion delivered before the coroner, that the deceased had died by poison, part of which was found in the stomach, and was most probably arsenic. Having a wish to know what the white powder actually was, I obtained, by agitating the portions of membrane in water, by washing and filtration, a portion of it in a dry state.

Three grains of this powder were boiled in six drachms of water, but did not dissolve; to this fluid was added a solution of fifteen grains of the sulphate of copper, in an equal quantity of water; the union produced a mixture of a sky blue colour. A similar compound made with arsenic in the shop, was of a fine green.

Three grains of the powder with two of charcoal and two drops of oil were mixed together, and after being secured betwixt two plates of brightened copper, were submitted to a red heat five minutes, but no white stain was perceivable. The fluid found in the stomach (with the washings, &c.) was boiled in a Florence flask, filtered, and suffered to cool. To a portion of this fluid a little lime water was added, and a slight white cloud only was perceived. A similar result took place on the addition to other portions of solutions of kali and sulphate of copper. The powder effervesced with sulphuric acid, and appeared to me to be white sand, with which, I have since been informed, it is common to adulterate arsenic sold in this country for farming purposes. To prove this, I made an experiment with two scruples, obtained from a druggist, and found it contained 25 grains of sand and chalky matter. The arsenic in this case was obtained by the young woman at a shop in Selby.

The preceding statement appears to me to be worthy of record in your useful publication, as a strong confirmation of the opinion delivered by Dr. Bostock, on the memorable trial at Lancaster, viz. that a person may be destroyed by taking poison; and yet, in consequence of vomiting, purging, and taking diluents, none can be detected after death. The unexpected result of this investigation, may also prevent others from forming a decisive opinion from appearances only, particularly upon occasions where the life of a fellow-creature will principally depend upon medical evidence. In the case published by Dr. Yelloly,

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in the 20th Number of the Edinburgh Medical Journal, the patient having taken arsenic, was attacked with vomiting, purging, &c. and drank a large quantity of warm water; after death, some white powder was found in the stomach, which was supposed to be arsenic. It was not however chemically examined. In the above related case, the quantity of sand found, could not have been less than two scruples, and the quantity of arsenic consequently considerable; yet, though she died in a few hours, none could be detected in the stomach. So far as an inference can be drawn from a solitary case, it appears from the above, that the common practice of giving diluents, if continued a long time, upon the supposition of the poison remaining in the stomach, must frequently do harm, (particularly in cases where a soluble substance, as blue and white vitriol, has been taken) by irritating the already too much irritated stomach unnecessarily; and that it would be more rational and consonant to the improved state of medical knowledge, after the stomach has been well emptied by an emetic, and a moderate use of diluents, to adopt such means as are likely to subdue the inflammation produced, and to administer such remedies as will produce quiescence in the stomach and bowels. It is much to be regretted, that there are so few histories of cases of death by, or recovery from, the effects of poison, in your valuable publication. On looking over it from its commencement, I cannot find more than two or three at most, where mineral poison had been taken. It appears to me, that details of such cases would be useful to many of your readers, who from locality of situation, cannot always confer with their medical brethren in cases of emergency, and who, from the high price of books, cannot always obtain what information is already published. Your widely circulated Journal furnishes the proper medium for the communication of any new facts in the posession of, or observations made by any of your numerous Correspondents, who, I hope, as it is a subject not yet sufficiently investigated, will favour your Readers with the results of their experience.

I am, &c.

THOMAS JONES,
Member of the Royal College of Surgeons, London.

Howden,
April 2, 1810.

On

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On Spontaneous Phosphorescence, by M. J. P. Dessaignes.

(From the Journal de Physique.)

I Have distinguished two sorts of spontaneous phosphorescence, the one transitory and fugitive, such as takes place on the union of a small quantity of water with quick lime; the other durable and permanent, as in luminous wood. I have spoken of the first kind formerly, and shall therefore confine myself in this place to an inquiry into the second species.

I ought in truth to acknowledge, that I have been anticipated in this part by N. Hulme, who in 1800, presented to the Royal Society of London, a very curious Memoir upon spontaneously luminous substances; but he directed his attention chiefly to fishes, and besides, notwithstanding all the interesting facts he has given us, he still left the question undecided. We shall see by what follows, that I have gone much further than he has done upon this subject, and that I have founded the explanation of this phenomenon upon the experimentum crucis of Bacon.

All wood, of whatever nature, is capable of becoming luminous, whether the trees are cut down alive, or whether they are suffered to rot upon the stumps, provided water penetrates into them, at a temperature from 8 to 18 degrees,* and they are in contact with atmospheric air. The wood of the oak turns brown, and changes its colour before it becomes phosphorescent. When the wood is compact, it is only the surface which is luminous; the inside of it is dark. Sound and dry wood is of the specific gravity 0,737; phosphorescent wood that is compact, and has not lost all its moisture 0,655; wood that has ceased to shine, and is dried by the air 0,349; it loses therefore in the act of phosphorescence more than half its original weight. The air pump has shewn me, that wood in full phosphorescence contains in its texture, more than one fourth its volume of atmospheric air.

The flesh of beef, of veal, and of fresh water fish, does not become phosphorescent so readily as sea fish. All these substances require a moderate temperature, as from 8 to 12 degrees, a constant moisture, and the contact of atmospheric air. Sea water, or a solution of salt, of equal strength, favours the developement of phosphorescence. The light with which fishes shine proceeds only from the surfaces; indeed,

* Thermometre centigrade.

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deed, the internal surfaces do not give out any light until they have been exposed to the air. The mucous parts, as the aponeuroses, the ligaments, the capsules, and the roes, are the most luminous.

I have examined by the eudiometer, the air contained in luminous wood: one measure of this, mixed with one of nitrous gas, produced an absorption of 0,53. A like experiment with atmospheric air, gave me 0,57. The atmospheric air therefore, which composes part of the substance of wood, is a vitiated air. I placed in an air-pump, a mass of luminous wood contained in a vessel of mercury inverted over a reservoir of the same fluid, and through the air extracted from the wood I passed lime-water, which instantly became turbid: it gives out therefore carbonic acid. Two pieces of wood taken from the same stump, the one not yet luminous, and the other in full phosphorescence, were plunged separately into two vessels filled with water; the first, after twenty days maceration, afforded only some colouring particles and extractive matter; the water of the second, nearly colourless, was a little turbid, and we could see about the wood a greyish flocculent matter, which fell to the bottom of the vessel, under the form of jelly, to give place to a further similar formation; this matter exhaled a fœtid animal odour; it appeared to me to discover the properties of vegetable albumen. I macerated in distilled water, equal quantities of the saw-dust of sound oak wood, and of wood which had ceased to shine; the water of the first was very high coloured, and gave a precipitate with glue, with sulphate of iron, and with potash; the other was insensible to these reagents, it only became a little turbid with the potash. The water in which luminous wood was macerated, was easily rendered turbid on the third day; the colourless extract which it holds in solution, is more abundant than in sound wood, and appears to be much more concrescible. This same wood decomposed by sulphuric acid, gave as its residue, a coal of a bright and velvet black, like that from burnt gum: the same wood, when in a sound state, treated in the same manner, afforded a coal of a much coarser grain, and less black. The phosphorescence ceased to show itself long before the destruction of the wood; when it had no longe the property of shining, it appeared to have lost all its physical qualities, its flexibility, its strength of texture, and a great part of its weight; but the woody structure in the parenchyma was preserved, though it was deprived of its force of cohesion, and it likewise retained all its chemical properties, for it is insoluble in water and in alcohol, and is attackable as before

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fore by the acids. It burns without flame, diffusing a very acrid smoke, and consumes away like tinder. It is well ascertained as to fishes, that during the whole time of their phosphorescence, they manifest no approach to putrefaction, nor is any change produced in the muscular fibre. But I have observed that the mucous juices which ooze out of the newly cut surfaces, are at first transparent and fluid; but when they become phosphorescent, they are sensibly viscid and clammy, and at last grow turbid, and there is separated from their substance a greyish powder, which gives them a sanious appearance: nevertheless, even this change is prior to their spontaneous decomposition. The muscular fibre, therefore, is not the real subject of phosphorescence, and this phenomenon has nothing in common with putrefaction.

Wood shines an equal length of time in distilled water and in river water, in each it does not give over shining till the end of six hours. Fish do not continue luminous in either of them longer than two hours. It is not true then, as Hulme affirms, that pure water extinguishes their phosphorescence immediately. Shining wood put into distilled water, and submitted to a pressure equal to 28 inches of mercury, becomes sensibly brighter under that pressure, but this luminous emanation does not continue longer than an hour.

Luminous wood and fishes continue to give out light for some time in azotic, hydrogen, and carbonic acid gases; but at length it grows weaker, and is entirely extinguished. We cannot but notice, when we are witnessing these experiments, that the phosphorescent matter, while it is shining, is already saturated with oxygen, which may serve for its combustion. Thus when we plunge them into water, and when we submit them to the air-pump, we can see a great quantity of air disengaged from both these substances. Two pieces of wood put into two vessels, one filled with oxygen gas, and the other with atmospheric air, shone an equal length of time and in a nearly similar manner. This same substance enclosed in atmospheric air, compressed by a column of mercury of 48 inches, shone in it with a much more brilliant light, and was sooner extinguished than in ordinary air. I left some luminous wood for three successive days in atmospheric air over distilled water; at the end of 12 hours there was an evident absorption equal to $\frac{1}{4}$ of a line, which went on increasing. When we enclose the air in a vessel over mercury, and let the wood remain in it, the level descends below the marked

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line, indicating a disengagement rather than an absorption, but when lime water is passed through it, it becomes turbid, and the volume of the water is diminished. We may observe the same phenomenon with luminous fishes, and we obtain the same results, but the absorption is more considerable.

It cannot be doubted, I think, after all the facts I have related, but that spontaneous phosphorescence is a species of combustion, in which there are formed water and carbonic acid. The substance then which affords it in wood and in fishes, must undergo a sensible change, because it loses some of its principles, and because, according to appearances, it is itself attaining a great degree of oxydation. But the ligneous principle in the wood, and the muscular fibre in the fish remain unaltered in the act of phosphorescence. In truth, the wood after this phenomenon, is clearly perceived to be altered in texture, and to have lost its most inflammable principle; but the ligneous particles still exist in the parenchyma, and appear to have retained all their physical and chemical properties. Their want of cohesion only announces the absence of a glutinous principle, which served to bind them together. This principle is to wood, what the gelatine is to the phosphate of lime in bones. Phosphorescence then, in this respect, is a phenomenon analogous to the steeping of hemp *(rouissage de chanvre)*, and to the preparation which rags undergo in the fermenting trough of the paper mill. The limits which I have prescribed myself, will not permit me to give more than the results of my observations. I shall content myself with saying, that phosphorescence in wood is produced by a glutinous extractive juice, which serves as the connecting medium of all the molecules. This juice, by reason of its union with the ligneous fecula, prevents its being attacked by water, although this may have had ready access to it; but as soon as the oxygen of the atmosphere is combined with it, some of its combustible principles being set at liberty, its attractive force for the fecula is at an end, and it becomes soluble in water. This is the reason why rotten wood affords a great deal more colourless extractive than the same wood when sound, and that this extractive is so much more concrescible, and more disposed to form pellicles or gelatinous floccules. The matter which is capable of becoming luminous in wood, absorbs oxygen, and is acted upon by all the reagents, even the weakest; and extractive is the only vegetable substance which possesses these properties in any very great degree. Phosphorescence

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phorescence wood is not then the first step of spontaneous decomposition, as has been thought, but is clearly the result of a transformation in the mixt body, and of its progress towards oxydation; for I have satisfied myself that the glutino-extractive, when oxygenated and dissolved in water, passes successively through the vinous, acetous, and putrid fermentations.

The muscular fibre in animals ought not any longer to be considered as the subject of phosphorescence, for it undergoes no alteration during that phenomenon, and it is ascertained that this species of combustion is anterior to putrefaction. Besides, all the colourless parts, and those which abound in mucous juices, as the skin, the ligaments, and the roes, are precisely those which are the most luminous. The matter which in animal organs has the property of shining, is the albumino-mucous juice, for that alone has the power of spontaneously absorbing oxygen from the atmosphere; and we may observe, that it is only this which discovers some change in the act of phosphorescence, for it evidently becomes more viscid and plastic, and at length becomes turbid. In a temperature below 0, the mixt body remains undisturbed, and goes on at last to putrefaction without being luminous. At a very high degree of heat the constituent principles, freed all at once from the attraction of cohesion, which was an obstacle to any new arrangement of them, become tumultuously intermingled, and endeavour to form binary compounds, according to the order of their elective attractions, and these are such as do not produce any luminous emanation. Under a moderate temperature, the primary elements being but little affected by the heat, preserve their union; the equilibrium of their affinities, although disturbed, is not entirely destroyed. In this state of effort and resistance, the absorbed oxygen detaches from the substance a portion of its hydrogen and carbon, to unite itself singly with these, and it is to this partial elimination that the phenomenon of phosphorescence is to be attributed.

Thus, instead of regarding heat as a favourable circumstance for the developement of this property, it would be more just to say that it owes its origin to a moderate degree of cold, which by virtue of its antiseptic power, retards the approach of putrefaction. Saturated saline solutions produce similar effects to cold upon the albumino-mucous juice; fresh water may in this respect be compared to heat, and very weak saline solutions to a moderate cold.

This juice, after having afforded water and carbonic

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acid, and being itself furnished with a larger quantity of oxygen, (for it must be observed, that before phosphorescence, the absorbed oxygen is only solidified in the substance, and not yet combined with it) becomes insoluble and concrete. Phophorescence, therefore, is a phenomenon analagous to that operation which takes place in respiration, and in all the vascular system, by which the lymph in undergoing various changes, and in receiving new proportions of oxygen, passes successively to the states of concrescible albumen, gelatine, and fibrine. This is the grand work of living nature, to which is owing the emanations of heat, which maintain our bodies in an equal temperature, and we can but believe, that this general transformation is accompanied by a disengagement of light, that would be sensible to our sight, if the opacity of the sides of the vessels did not prevent it. The act of phosphorescence is not then the commencement of putrefaction, but is evidently a continued progress of a substance imperfectly combined to a more intimate state of combination; a state, nevertheless, in which it does not long remain in substances deprived of life, because the action of water, of air, and of temperature, soon destroys this equilibrium, which can only subsist under the influence of the vital powers.

Substance of a Letter to the Commissioners for (Transports, and) Sick and Wounded Seamen, upon the Utility of Stimulants, and the Impropriety of warm Cataplasms as general Applications in the Treatment of Ulcers. By D. I. H. Dickson, M. D. Physician, and Inspector of his Majesty's Fleet, at the Leeward Islands.

THE consideration of Ulcers, which in my letter to you of the 1st of August, I expressed my intention of resuming, is of much greater importance than probably may be supposed by those who have not had extensive opportunities of witnessing opposite modes of treatment, and thereby of judging of the accumulated sufferings of the loss of limbs, and even of lives, that may accrue from improper treatment. A diffuse view of a subject upon which so much has been written, would be altogether superfluous; and without meaning to discuss the nature and varieties of ulcers as they have occurred in different climates, in unhealthy

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healthy situations, from unwholesome diet, or as connected with constitutional disease; my object is merely to recommend, generally, the use of stimulants for their cure, and to point out the pernicious effects of warm cataplasms and emollient greasy applications. Besides many others who have noticed the bad effects of such remedies, Dr. Trotter, in treating of the malignant Channel ulcer, remarks, that cold applications in the inflammatory stage, seemed to answer better than fomentations. These ulcers, he observes, extended rapidly over the limb, with a profuse fœtid discharge, and left the bone almost bare its whole length. From whatever causes this might arise in the Channel, effects very similar are apt to be produced by warm poultices in the West Indies. Their application is succeeded (in proportion to the tendency of the ulcer to malignancy) by a profuse, vitiated discharge, with a loss of substance so rapid, that one might almost imagine the fleshy parts are seen melting away, or disappearing before the eyes; and thus a small sore, in a few days, becomes a painful, extensive, foul, sloughing ulcer. That this has lately been strikingly illustrated, will appear by the following extract of a report made to me by Mr. Moore, late surgeon of the Marine garrison at Mariegalante, dated July 3, 1808. After stating that there were sixty-five cases of ulcer then in the sick report, he observes:

"Prior to my illness we had scarcely a case shewing a tendency to sloughing; but during the nine days that Mr. —— had charge of my sick, spirits and other stimulants (precisely after the manner you recommended to Mr. Nesbitt, and in which practice I had with success treated my ulcers) were thrown aside, and poultices substituted in their place, not only in the hospitals, but in the trifling sores of such as were not in the sick list, (always numerous). The consequence was, as you cautioned Mr. Nesbitt; sores, before inconsiderable, became sloughing ulcers. These cases crowded in day after day, and from not having an hospital sufficiently airy, and large, &c. it is no wonder that they soon became the completely contagious, sloughing ulcer. Lately, better accommodations have been procured as to air, &c. and with evident good effects. Of the cases now reported, twenty are in a sloughing state, forty-five granulating, and some nearly healed."

Previously to the receipt of this Report, I had learnt the great increase of ulcers in that garrison; and suspecting some impropriety of treatment, I had written to Mr. Nesbitt, the successor of Mr. Moore, recommending stimulants, the

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the total omission of cataplasms, attention in dressing, and the separation of the bad cases from the benign. On my arrival soon after at Mariegalante, at the end of July, tho' I found the general sickness much increased, and 75 ulcers on the list, yet many of them had much improved by the means above recommended. "Some were still extremely malignant; but the greater part were well conditioned and healing." Mr. Nesbitt was taken ill, and the ulcers were degenerating into highly malignant sphacelating stages, when he was relieved for a while by Mr. Mortimer, surgeon of the flag ship, by whose attention and assiduity they were brought into a state of immediate and rapidly progressive improvement. He informed me, the only means he employed were great attention in cleaning the sores, the application of rum, and compression. Mr. Mortimer was also taken ill, and the ulcers, under a French practice of unguents, &c. were again getting rapidly worse, when he was relieved by Mr. Waller, under whose treatment, consisting entirely of stimulants, they were again improving by the last accounts which I have received. Under all these disadvantages, and amidst great sickness and mortality, only two deaths can be traced to this source, and there are two or three cases of caries which may require amputation; but if warm poultices, and emollient ointments had been persisted in throughout, what would have been the scene of misery; what would have been the loss of limbs and of lives from this cause alone, it is painful to conjecture.

The Board will recollect that a similar instance occurred on board of his Majesty's ship the Northumberland, off Ferrol, in 1804. That ship had been almost over-run with ulcers, when the late Dr. Stephen joined. He "found forty-three ulcers on the medical list, most of which appeared to be either in a state of high irritation and inflammation, or inactive, and torpid; with marks of gangrene and sphacelus." By the entire prohibition of cataplasms, and by the use of stimulants, they were reduced to six in a short time, and these were in a fair way of recovery, as stated by him to the Board, in a letter dated December 19, 1804. These evidences bear so decisively on the point in question, that I believe it unnecessary to bring forward any of the reports that have been made to me on ulcers on this station, or to detail the success of the stimulating plan in the hospitals here, with which you must be well acquainted. But exceptions must ever qualify general approbation;

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probation; it is not pretended that spirit or other stimulants will arrest the progress of sphacelus in ulcers, but they will assist the extrusion, and greatly lessen the fœtor of the diseased parts; while in the simple ulcer, they will hasten cicatrization; and in the vitiated, they will tend to alter or destroy the morbid action going on.

Referring to my own experience, I have not found much difficulty in curing the general run of ulcers, or, at least in preventing their gaining any ascendancy; when I have failed in these objects, they have been of long standing, and had not been properly attended to in their early stages. I have, indeed, seen shocking cases of ulcers, but I am convinced that these had either been greatly neglected at first, or had been improperly poulticed, or had been plastered with ointments, or pasted up with various powders, until the confined and vitiated discharge became more and more morbid, and specifically malignant. This must be more especially the case in warm climates; hence the importance of dressing sores at least twice a day in such situations, of cleaning them well, and of changing the action of the vessels that secrete the morbid matter by stimulants. The remedies of this description, from which I have seen the most benefit, are diluted alcohol, or common proof spirit, as rum, brandy, &c. Solutions of the nitrate of silver (of various degrees of strength, but on an average, 12 grains to an ounce of water), of the sulphate of copper, red oxide of mercury, lime or lemon juice, &c. The latter, which has been strongly recommended by Drs. Blane and Gillespie, is very generally used, and with excellent corrective effects in foul, dark coloured, fœtid, or scorbutic ulcers. But as applications of general utility and efficacy, I prefer lint dipped in proof spirit, or the solution of the nitrate of silver, to the others. This is, however, of little consequence; as the certainty and quickness with which the ulcer may be cured, depend much upon changing the stimulus. When one remedy of this class has been long persisted in, it loses its effect, and the ulcer ceases to improve; in this case it should be immediately superseded by another, and that again by a third, and so on, recurring afterwards to the first, when it will be found to have regained its original influence. The benefit of this plan has been so generally noticed of late, that I trust it is superfluous to insist upon it farther.

A tight, well applied bandage of calico, will also generally much contribute to the cure; and where there is surrounding, slow, deep-coloured inflammation, it should be

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be frequently wetted with spirit, lemon juice, saturnine solution, or water. It is often remarkable, how speedily the redness, tumour, and pain are reduced by these remedies, which act by increasing and supporting the energy and contractile power of the vessels, and thus assisting them to transmit the accumulated blood, by which, in this inactive kind of inflammation, they were distended and oppressed; while, on the other hand, warm applications will farther solicit determination, and increase the atony and relaxation of the diseased parts. Finally, then, my opinion of warm poultices is explicitly this: there are, occasionally, states of ulcer where gentle warmth and moisture, through the medium of a few cataplasms, will produce a soothing and cleansing effect; and there are others, where the healthy progress is so strong as not to be easily perverted by any application, however untoward; but with these exceptions, I infer that their temporary use is generally inexpedient, in warm climates at least; and that their continuance is always highly hurtful. When an ulcer has required a change of appearance, they have been too often resorted to without sufficient attention or discrimination. Every practitioner has recurred to them, and has been obliged to leave them off repeatedly; while many, if they have employed stimulants at all, and the ulcer did not instantly improve, or particularly, if it seemed to degenerate, have thrown them aside, condemned after a few inadequate trials. Should the employment of stimulants so very generally, if not exclusively, appear too indiscriminate, I have only to remark, that I have not found this to be the case, while I have seen much of the bad effects of the practice, which I here conceive it my duty to reprobate.

Of the difficulty of curing ulcers, in all ages, in certain situations and habits, or particularly on the lower extremities, I am perfectly aware; without going farther back, Baglivi states that ulcers on the legs were almost incurable at Rome, and wounds difficult to heal; while the like on the head were easily cured. Drs. Cleghorn and Hunter observed the same thing at Minorca and Jamaica; and very many authorities testify the great obstinacy of ulcerated legs, particularly in warm climates, and often the impossibility of curing them at all; yet, that they would frequently heal on the passage homeward. But as this difficulty, as well as the tendency to recur, will greatly depend on the length of standing of ulcers, which will again depend

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depend on the manner they are treated at first, I must still express my opinion, that from the improved victualling of the navy, and from the improved method of treatment, most ulcers can now be certainly cured, the generality easily; or at any rate prevented from becoming malignant, in the ordinary course of service at least. The cause of the frequent return of ulcers has been too little attended to, but is of such importance, that I trust to be excused repeating how much it is influenced by the plan of cure. When this has been weak, inactive, or improper, a cure, if at all obtained, is so long in taking place, that a habit is acquired, facilitating the recurrence of this evil from the most trivial causes: hence I have observed, that the same men have been put into the medical list, again and again, in the course of the year; and a great majority of ulcerated patients are ever found on inquiry to have had ulcer before. In this respect, ulcer is similar to dysentery; where these diseases have been of long standing, or have recurred two or three times in this country, they should be sent home. Yet these cases often seem trifling, and not unfrequently get well, or so far improve during the passage, as on their arrival to appear to have been invalided without sufficient reasons.

The state of the body has been too little attended to during the cure of ulcers. The digestive organs, the regularity of the bowels, and general habit, should be particularly enquired into, and any aberations corrected by aperients, tonics, stimulants, and alteratives. The importance of this, and the reciprocal influence of diseased actions are so fully illustrated in Mr. Abernethy's Treatise on "The Disorders of Health," as to preclude any farther observations here. Without taking upon me to decide upon the points of identity or diversity, in specific or particularly malignant, sphacelating, or obstinate ulcers, such as the phagedæna, and hospital sore, of Drs. Adams and Rollo; and those described by Drs. Trotter, Harness, Gillespie, &c. in the Channel, Mediterranean, East and West Indies; and without citing the experiments that have been made on healthy pus by Messrs. Hunter, Home, and many others, as contrasted with the specific, morbid discharges, examined by Drs. Crawford, Mitchell, Mr. Cruikshank, &c. I here merely beg leave to refer to those celebrated authorities, because from such a review I apprehend much may be found, or inferred, in favour of stimulating or active remedies.

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The fœtor of the hospital sore, Mr. Cruikshank found was most effectually destroyed by the nitrate and muriate of mercury, by the nitrous acid, and especially by the oxygenated muriatic acid, in the form of liquid, or gas: and Dr. Rollo was most successful in curing the same ulcer by these remedies, and the nitrate of silver. Dr. Mitchell treated foul, ill-conditioned ulcers with alkalies, with great success; and his theory of acidity, which led to their employment, whether admitted or not, does not affect their powerfully stimulating property. Dr. Underwood, I believe, recommends stimulants generally, for the cure of ulcers. The good effects of such applications in extremely painful and irritable venereal sores, might also be adduced in favour of this practice. The application of nitre to ulcers, highly extolled by the late Dr. Cuming, I find was used in the naval hospital at Halifax, many years ago; and I was there informed, it was first tried by Dr. Paterson at the Cape of Good Hope. As it gives intense pain, and is mentioned without praise, I think it may well give way to other powerful and less distressing remedies. I have no experience of its effects in gangrene. Some writers, and particularly Mr. Whately and Dr. Underwood, have strongly recommended exercise during the cure of ulcers, while rest and a horizontal position of the limb, have been inculcated by the majority of practitioners, and especially by my much lamented friend, the late Mr. Benjamin Bell. The advantages of each of those modes in different states of ulceration, cannot, I think, be questioned; but generally speaking, I must give a decided preference to rest, because I have so very often found the cure greatly retarded, or altogether prevented, while men were permitted to walk about. In the active, inflammatory, or progressive stages, it is indispensable. By an horizontal position, and a cooling regimen, ulcers tending to malignancy may often be subdued in the beginning; while, on the other hand, in the chronic, torpid stage of ulceration, exercise may not only be innocuous, but in many cases highly beneficial, by improving the local and general health, and vigour of circulation. Neither the theory of a dependant posture, nor of a defect of vital energy, can therefore affect the propriety of exercise, or rest, in opposite states of ulcers.

I am happy to find my ideas on the treatment of ulcers in coincidence with those of a very able practitioner, Mr. M'Arthur, of the naval hospital at Barbadoes, who has transmitted

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to you a most valuable paper on this subject, the result of much practical observation, and to whose recommendation, and diffusion of the good effects of spirituous and other stimulating applications, the cure of ulcers in the West Indies is much indebted.

Sept. 1, 1808.

Dr. Adams, *on the Digestion of the Stomach after Death, in Answer to Mr.* Burns.

NOTHING can be more agreeable to one who wishes to be understood, than to meet with objections, the answering which may tend to elucidate his opinions. It has often been remarked of polemics, that if two men, who mean well, could converse together for half an hour, however different they might fancy each other's sentiments, they would part satisfied with one another. If such is the case with controversies depending on the interpretation of words, how much more probable must it be where the whole depends on demonstrable facts.

Before entering on the particular passages of Mr. Burn's paper, in the last Number of the Edinburgh Journal, in which he has done me the honour to introduce my name, permit me to premise a few propositions, which should always be kept in view, while we attend to the digestion of the stomach after death.

1st. That the gastric juice is secreted in the stomach, in which cavity it reduces all digestible substances to a pultaceous mass.

2d. That the gastric juice does not, in the usual condition of the living body, digest the stomach itself.

3d. That after death certain parts of the stomach are sometimes found digested, or reduced to a mass similar to those substances which are affected by the gastric juice.

From these propositions Mr. Hunter first discovered that the property of this juice is to dissolve animal substance only when dead, which is further proved by the number of animals that live and grow in the stomachs of other animals without injury, but which, when dead, are soluble in the gastric juice of the same stomachs.

Spallanzani, with a patience that almost wearies his reader, made many attempts at dissolving the stomach by its own juice, but succeeded satisfactorily in none. He proved however

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however two things, viz. that the process of digestion continues after death, and that the stomach is digestible. The first by introducing food into the stomach after he had killed his animal; and the second by giving the stomach of one dog to be devoured by another. In both cases he found digestion take place. This convinced him of two leading facts, which led him to admit the probability of Mr. Hunter's, though he never could produce them.

The following passage is extracted from Mr. Hunter's paper,* to show, amongst other things, the propriety of his remarks on the mode of conducting experiments, and also the difficulty of drawing just conclusions from their result, until we have detected every fact with its series and order.

"Spallanzani (says Mr. Hunter) made some experiments, to prove that digestion is carried on after death; but they are not so conducted as to correspond with the appearances in the dead body. An experiment, although it may be very well and accurately made, so far as the experiment goes, if it does not preserve a close connection with the purpose for which it was made, the conclusions to be drawn from it cannot correspond with the intention. This is exactly the case with the experiments of Spallanzani, which although they prove that meat was digested in the stomach after the animal was killed, (which no one doubted) yet are not at all calculated to show that the stomach itself may be digested. In fact, the mode in which they were managed, rather tended to prevent that effect from taking place, the gastric juice having substances introduced on which it could act, was less likely to affect the coats of the stomach. That the digestion was not carried on merely by the gastric juice secreted before death, is evident from his own account, some of the food which had been introduced and digested, being found in the duodenum; a thing that could not have happened, if a cessation of the actions of life in the involuntary parts had taken place when visible life terminated. There had been an action, and most probably a secretion, in the stomach. The only experiment that can be made with any probability of a decided result is, to kill the animal while the stomach is empty, and observe what afterwards takes place. There are very few stomachs that have not, when examined after death, some of the inner villous coat destroyed;

* Observations on certain Parts of the Animal Oeconomy, p. 181.

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stroyed; which may have been done by the gastric juice in the ducts of the glands which secrete it."

I have always thought Spallanzani, in one particular, unfairly treated in this passage; for it is certain that the case which first attracted Mr. Hunter's attention, and which he relates with most minuteness, was of a man, who just before the accident by which his skull was fractured, "had made a hearty supper of bread, cheese, and ale." Upon opening the abdomen, he adds, "the stomach, tho' it still contained a good deal, was dissolved at its great end, and a *considerable part of the contents* lay loose in the cavity of the belly."

"The *second instance* (a term which might lead one to suppose that the appearances were similar) was in a man who died in St. George's Hospital, a few hours after receiving a violent blow on his head, which fractured his skull."* It is plain, however, by the above remark on Spallanzani, that Mr. Hunter did not consider a previous meal as necessary to produce these appearances. Mr. Burns is therefore not less polite than correct, when he says, 'Dr. Adams will, I trust, excuse me, when I point out an error he has committed. Mr. Hunter, in his observations, details the history of three examples, in which the stomach was digested. Two of the men died shortly after having their skulls fractured, and the third was 'a man who had been hanged."† Nothing can be more correct, but in the next passage Mr. H. seems to me not perfectly understood.

"Dr. Adams also appears to me (continues Mr. B.) to have drawn an inference from the two cases which he does notice, by no means warranted by the general tenor of Mr. Hunter's Essay. Although the individual cases which Mr. Hunter adduces to prove the fact of the solution of the stomach after death, were subjects who had been deprived of life by violence; still, in no part of his paper, does he limit the action of the gastric juice on the stomach, to such as have been killed by violence. Indeed, it is so much the reverse, that he inculcates, that there are few dead bodies in which the stomach is not in some measure dissolved. Nay, he declares, that 'there is frequently a considerable aperture made in this viscus, and, in many subjects, this digestive power extends much farther than through the stomach. I have often found that, after it had dissolved

* Animal Oeconomy, p. 187, note.
† Edinburgh Medical Journal, p. 130, vol. vi.

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the stomach at the usual place, the contents of the stomach had come into contact with the spleen and diaphragm, had partly dissolved the adjacent side of the spleen, and had dissolved the diaphragm quite through, so that the contents of the stomach were found in the cavity of the thorax, and had even affected the lungs in a small degree.'* I would here beg leave to inquire, is it probable, that one so accurate in his statement, and so faithful in his description, as Mr. Hunter must be allowed, even by his opponents, to have been, would have used such expressions had he merely seen the three cases which he particularises. It is quite incredible, nor can I conceive how Dr. Adams came to fall into such an error. I have from Mr. Hunter's own paper proved, that he had really seen subjects having the stomach digested, besides these he has specified; but, as these cases were the first which came under his observation, they seem to have made the most lasting impression. From this circumstance, and from the manner in which Dr. Hunter wrote, many have embraced the opinion adopted by Dr. Adams, that solution of the coats of the stomach never does take place, except where the person has been suddenly deprived of life. Yet I do not conceive that Mr. Hunter either sanctions this opinion, or that he was the one who brought it into notice. We find nothing of this kind in his Essay, where it is clearly stated, that he had met with digestion in the stomach in some who had died a natural death. Can any thing be more explicit than the statement which Mr. Hunter gives, when he says, that for some time he was at a loss how to explain these solutions of the stomach, especially as 'they were most frequent in those who had died of violent deaths.' No man will believe that Mr. Hunter would have expressed himself in this way, if he had never met with an instance of digestion of the stomach, except after death from violence. Were this point merely of a speculative nature, and were its decision merely a matter of curiosity, I would consider the time employed in discussing it, as little better than mispent; but when I consider, that it is one on which the practitioner may be called upon to give his opinion, in a situation where that opinion may determine the fate of a criminal, I cannot but view it as an important question, which it is the duty of every one to elucidate to the utmost of his ability. This consideration, and having had some opportunity

* Hunter's Observations, p. 186.

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opportunity of investigating this subject, has induced me to collect the observations which I had made during the dissection of those bodies in which I found the stomach digested. These observations have led me to conclude, that digestion of the stomach after death, is neither so rare in its occurrence as some have imagined, nor is it confined to such subjects as had been, previous to death, in a healthy condition; and they have also demonstrated, that other parts of the stomach, besides the large end, may be acted on by the gastric juice."*

In the above passage, Mr. Burns and I understand Mr. Hunter differently in two instances.

First, it appears to me "warranted by the general tenor of Mr. H's Essay," that he expected such a solution of the stomach, as amounts to a perforation only in animals who were killed by violence, and that in all these cases he discovered no appearance of blood-vessels; "*the edges of the opening*, says he, appear to be half dissolved, very much like that appearance which fleshy parts undergo when half digested in a living stomach."

Secondly, when "he inculcates that there are very few dead bodies in which the stomach is not, in some measure, dissolved," he adds, in his paper in the Philosophical Transactions, "and one who is acquainted with dissections, can easily trace the gradations from the smallest to the greatest.

"To be sensible of this effect, nothing more is necessary than to compare the inner surface of the great end of the stomach with any other part of the inner surface; what is sound will appear soft, spongy, and granulated, and without distinct blood-vessels, opake, and thick; while the other will appear smooth, thin, and more transparent; and the vessels will be seen ramifying in its substance, and upon squeezing the blood which they contain from the larger branches to the smaller, it will be found to pass out at the digested ends of the vessels, and appear like drops on the inner surface."†

This distinction of the two extreme degrees of digestion of the stomach, is of the utmost importance, and, in one respect, seems obvious, because no one would make Mr. Hunter speak of the digestion of the great end of the stomach *to perforation*, as so common, that there are very few dead bodies in which it does not occur.

* Edinburgh Medical Journal, supra.

† Observations on Animal Economy, p. 196.

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The appearances so common, is of the stomach in *some degree digested* at the same end. In these instances, *the inner surface* only is digested, and so slightly, that only such an erosion in the extremities of the blood-vessels follows, that the blood may be squeezed out from the larger branches to those apertures made in the smaller. This superficial digestion, he conceives, "may be done by the gastric juice in the ducts of the glands which secrete it." But to produce the *perforation*, a larger quantity seems necessary, and for this purpose, we shall see some reason to believe that the animal must be killed in health, or in a condition copiously to secrete gastric juice.

It will hardly be suspected, that I should be less willing than Mr. Burns, to acknowledge the great accuracy of Mr. Hunter. But Mr. H. has taken great pains to show us that he considered his observations on this subject as by no means compleat. The penultimate paragraph of his paper, in the Philosophical Transactions, concludes thus: "Being employed, upon this subject, and therefore enabled to account more readily for appearances which had any connection with it, and observing that the half-dissolved parts of the stomach were similar to the half-digested food, it immediately struck me, that it was the process of digestion going on after death; and that the stomach, being dead, was no longer capable of resisting the powers of that menstruum, which itself had formed for the digestion of food. With this idea, I sat about making experiments to produce these appearances at pleasure, which would have taught us how long the animal ought to live after feeding, and how long it should remain after death before it is opened; and above all, to find out the method of producing the greatest digestive power in the living stomach; *but this led me into a boundless field.*"*

In the copy contained in his "observations," the last limb of the sentence is omitted; but in his preliminary remarks, published fourteen years after the paper appeared in the Transactions, he is still more careful to show how incomplete he considered his inquiries. "I shall conclude, says he, by adding a copy of the above-mentioned paper, in hopes that others will take up the subject in a more enlarged point of view."

I shall now, therefore, consider Mr. Burns as endeavouring to fulfil Mr. Hunter's wish, and myself as contributing towards it. Permit me then to draw your attention to another remark of Mr. Hunter's, on Spallanzani's experiments contained in the above extract. "That the digestion,

* See the original paper in the Philosophical Transactions.

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tion, says Mr. H. was not carried on merely by the gastric juice secreted *before death*, is evident from his own account, some of the food which had been introduced and digested being found in the duodenum; a thing which could not have happened if a cessation of the actions of life, in the involuntary parts, had taken place when *visible life terminated*. There had been an action, and probably a secretion, in the stomach."—— By this passage it is evident, that when Mr. Hunter uses the term *before death*, he means before the animal had received that violence which effectually prevented his recovering all those actions by which life is supported. This is confirmed by a subsequent expression, in which he speaks of "the *termination of visible life*." It will never be supposed that he considered the stomach dead, whilst it was performing its customary functions of secretion, and of propelling the digested food to the duodenum. The objection therefore against Spallanzani's conclusion should have been: That it is contrary to his [Mr. H's] theory to expect the stomach should be digested whilst it gave proofs of being still alive, and that, in all probability, its death was so gradual, that secretion had ceased before the extinction of life.

Here then we see the reason why the digestion of the stomach, to any considerable degree, rarely takes place even in animals who die a violent death, and also why "there are very few stomachs that have not, when examined after death, some of the villous coat destroyed, which may have been done by the gastric juice left in the ducts of the glands which secrete it." For however suddenly, or by whatever violence, *visible life* may have *terminated*, if the *actions of life in the involuntary parts* continue, those parts must have retained their life, which would gradually cease; and if death is the consequence of disease, the quantity of gastric juice is likely to be small, and probably the last portion secreted may, for want of power to propel it, remain in the glands, or their ducts, till the very parts which secrete, and should forward it, shall be in a condition to be digested by it.

This is, I hope, enough to explain the manner in which the superficial digestion of the stomach, in its mucous membrane, so generally takes place in every mode of dying, provided the body has been kept, and is examined after the stomach has lost its life.

It now remains to show the circumstances under which the whole thickness of the stomach shall be digested, and

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not only the contents found loose in the abdomen, but even parts of the viscera, in contact with the perforated part of the stomach, shall be digested also.

This reduces the whole to the following question: If the stomach can only secrete whilst living, and only be digested when dead, how can it be digested by its own juice? The only answer must be, that the juice which it secreted during life, has become its solvent after death. The question then returns, Why is not the stomach digested in all animals killed in a state to secrete gastric juice? It cannot be accounted for by saying that the juice is expended in the digestion of food already in the stomach; because we have so many instances on record, in which the stomach has been digested before the food, and so indeed we might expect, because the juice must be more immediately applied to the surface of the stomach, and part of it is probably contained in its very substance.

In this, as in most other cases, we must begin by ascertaining the precise meaning of the language we use.

"I shall divide violent deaths, (says Mr. H. in his paper on persons apparently drowned)* into three kinds: First, where a stop is only put to the action of life in the animal, but without any irreparable injury to a vital part; which action, if not restored in a certain time, will be irrecoverably lost. The length of that time is subject to considerable variation, probably depending on circumstances with which we are at present unacquainted. The second is, where an injury is done to a vital part; as by taking away blood till the powers of action are lost; or by a wound or pressure on the brain or spinal marrow, sufficient life remaining in the solids, if action could be restored to the vital parts. The third is, where absolute death instantly takes place in every part, as is often the case in strokes of lightening; in the common method of killing eels, by throwing them on some hard substance, in such a manner as that the whole length of the animal shall receive the shock at the same instant; and, as, I believe, happens by a blow on the stomach; in all which cases the muscles remain flexible."

The last state is that which we have to consider, where *every part is instantly killed.* In the two former, the individual parts retain life; and if in the first, action could be restored, or in the second blood restored, or the causes of pressure removed, the animal might be recovered. But in the

* Observations, &c. p. 117.

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the third, absolute death instantly takes place in every part; one proof of which is, that "the muscles remain flexible." In this only then is the stomach killed at the moment when it was in complete health and secreting freely.

We have seen, that after visible life is terminated, in most cases the individual parts retain their life for a certain time, various, according to the circumstances of death. The proofs of this are, that the muscles afterwards stiffen, that the blood is thrown from the arteries to the veins, and that it coagulates, and in some instances, we can perceive a continuation of the peristaltic motion. In this state, therefore, the stomach retains its life, and is consequently indigestible whilst the digestion of food continues as before, and even the peristaltic motion.

This we know is the most ordinary mode of death, and therefore accounts for our so seldom seeing the stomach digested through its whole substance. But in animals killed by lightening, it is found, that the muscles do not stiffen, the blood does not coagulate, and that putrefaction soon follows. There are other circumstances, under which the same mode of death happens, but they are more uncertain. However, the proofs in all are the same, viz. that the muscles do not stiffen, that the blood does not coagulate, and it is not thrown from the arteries into the veins. If an animal in previous health shows these last mentioned appearances after death, and has food in his stomach, we shall find the stomach digested, and its contents in the cavity of the abdomen.

I have taken the strongest view of the subject, but it will be allowed, that there are intermediate stages. Animals sometimes stiffen almost immediately after death, and become as quickly afterwards flexible. This is frequently the case in very hot weather, and in hunted animals. Here the process to absolute death in every part comes on not quickly, that the same event may happen to the stomach, though in a less degree.

An animal may die in such a state, that his appetite is considerable immediately before he ceases to breathe, even if his death has been unattended with violence. Such is sometimes the case in phthisis pulmonalis, when after a more than usual exertion of any kind the patient suddenly ceases to breathe; it happens still oftener in psoas and other large abscesses. Yet in these cases, to use Mr. Hunter's expression, though "visible life is terminated," yet the component parts retain life for a time, as is evident by the

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the subsequent stiffening of the body. Digestion therefore still continues, and the peristaltic motion also. The time of their continuance must depend on circumstances attending the mode of dying, which will vary with the season of the year and other causes which cannot be exactly ascertained. Hence, the food in a certain state of digestion may be propelled to the pyloric end of the stomach; or gastric juice may be propelled, unsaturated with food; and should this have occurred just at the time when the stomach loses its remaining life, that part with which the gastric juice is in contact will be digested. Should the life of these parts continue longer, a portion of unsaturated gastric juice may be propelled by the peristaltic motion, till it rests on a part of the intestine, which will in that case be perforated. This is by no means an uncommon case.

More than twenty years ago, I was present at the dissection of a subject, in which one practical anatomist used the knife, and another inspected. The former, who had seen the case during life, was much surprised at meeting with a perforation in one of the intestines, though none of the previous symptoms indicated disease in those parts. The other gentleman suspected it was an accidental cut; but on examination, it was found, that the inner substance was gradually thinned all round the hole. Many of these appearances are mentioned by other authors, particularly, as well as I can recollect of dissections in warm climates. I cannot venture from memory, to name any but Dr. Blane, whose valuable work on the Diseases of Seamen, I have so often turned over, as to enable me readily to point out the following passage. "The body, says he, of one of the men who died of this fever, was inspected at the hospital, and there was found to be inflammation, and even perforation of the intestines, without any previous symptoms that could lead to expect such an appearance; a circumstance more likely to happen in the former sort of fever than the latter."* As it does not appear that Dr. Blane was present at the dissection, I need not add how uncertain the proofs of inflammation are when related by those who are not much accustomed to examine dead bodies.

We are obliged to Mr. Burns for other valuable histories, in which he found every part of the alimentary canal dissolved into a pulpy gelatinous mass. If I understand him, however,

* Blane's Diseases of Seamen, p. 187.

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however, the parts seem to have retained their figure, as they "tore when gently touched." This is somewhat short of that complete solution which takes place in that part of the stomach, through which the contents have passed. I leave it to his judgment tod etermine, whether these events may be accounted for thus. The subjects, he tells us, were young children, fat, free from putrefaction, and in whose bodies nothing could be distinguished to account for death. It is therefore presumable, that they were in health a short time before death; perhaps died in some violent paroxysm of convulsion from teething, or some other cause. As no putrefaction had taken place, might not the peristaltic motion have gradually propelled gastric juice and food, in a certain stage of digestion, along the whole canal, leaving sufficient in the plicæ to produce this effect after the life of the intestines had ceased. It would be easy to suggest many other arguments in favour of this opinion; but as the cases are Mr. Burns's, I shall leave them in his hands.

All this may therefore be considered as conjecture; but that the digestion of the great end of the stomach is caused by the union of the events before mentioned, is readily reduced to proof; in an animal of all others the most convenient for experiment, and the fittest for this in particular.

It is well known that rabbits keep a shorter time than most other animals killed for the table. That is, absolute universal death takes place, and the muscles become flexible, or never stiffen. If a rabbit is taken from the hutch in summer, about noon, and instantly killed with dexterity, the probability is, that it will not stiffen, and if it does not, that the stomach will be digested. If another is killed late in the evening, should stiffen, and the blood coagulate, the stomach will not be found digested.

I hope I shall not be so far misunderstood, as to be accused of asserting that these modes or times of killing will always be attended with these effects. The probability is, that by the first mode and time of killing, the animal will not stiffen, yet this cannot be ascertained, and if it does stiffen, we are not to expect that the stomach shall be digested. All that can be said is, that this mode and time of killing succeeded in my experiment; and if those who repeat it find that the animal stiffens for any length of time, the experiment must be repeated till one is killed in such a manner that no stiffening takes place, or that the body very soon becomes flexible. A more particular account of Mr.

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Mr. Brookes's and my own experiments is given in the preliminary remarks to "Observations on Morbid Poisons," to which Mr. Burns alludes.

I cannot conclude these remarks without expressing the pleasure I felt at perusing Mr. Burns's paper. For some time past, a number of medical writers, or perhaps, the same writers in different periodical publications, seem to have found great pleasure in amusing the public at the expence of the authors whom they notice. If their intention is only to render their works popular, it were to be wished that they would be more sparing of their severity to young authors, whose feelings may be more acute, and some of whom are, perhaps, scarcely known till they appear before the world under all these disadvantages. When an author has been some years before the public, the discerning part, who always maintain a certain degree of influence in general opinion, will bring him to his proper level. To such, therefore, it is of less consequence if the arrangement of his work is overlooked, or purposely misrepresented: — if allusions to objects the most familiar, which are selected as the means of illustrating new doctrines, should be quoted without reference to such illustrations, and produced as proofs how ready the author is at telling what every body knows: — if expressions, dictated in the warmth of friendship or gratitude, unconnected with argument, and however sparingly introduced, should be carefully selected and produced as inconsistent with solid reasoning: — if the blunders of compositors in the dead languages, after reiterated corrections; or still less important errors in a living language, should be produced: — in a word, if all these minutiæ of a publication should be dwelt upon, whilst the division and arrangement, the chain of arguments by which new opinions are supported, and every thing else which can interest the reader, is carefully omitted, an old author will be ready to impute the whole to the impatience of one class of critics.* But it is to be wished, if this style of criticism

* See Swift's Battle of the Books — Soliloquy of Criticisms. "It is I, who give wisdom to ideots and infants; by me, children grow wiser than their parents; by me, beaux become politicians, and school boys judges of philosophy; by me, sophisters debate and conclude upon the depths of knowledge; and coffee-house wits, instinct by me, can correct an Author's style, and display his minutest errors without understanding a syllable

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cism is necessary to render a book more saleable, that it should be chiefly directed against us, who are best able to bear it.

After this transient view, it is with increased satisfaction that I return to Mr. Burns, whose paper is written in such a manner as to afford some prospect of politeness even in medical controversy. Should he think these Remarks worthy his notice, there is only one hint I shall take the liberty of offering, which, from the tenor of his writing, there is no doubt will be well received. It would be desirable when one writer thinks it proper to notice another, that he should always fancy himself conversing.—I shall now, therefore, suppose Mr. Burns asking, "What induced Dr. Adams to conceive it is only under circumstances of violent death, that Mr. Hunter found the stomach digested?" To this, my answer should be, that I feel greatly obliged to Mr. Burns, for pointing out my error. That it must be admitted, Mr. Hunter does not say, "the stomach could only be digested under circumstances of sudden death;" but by the passage already quoted, we have seen that he "set about making *experiments* to produce these appearances at pleasure." To the preceding paragraph of the same paper, in which he tells us, that he found the appearances most frequent in those who died a violent death, a note is added, which contains the only instances he any where relates of its occurrence in the human subject. These all died violent deaths, and in one of them the stomach was previously in the act of digesting food. In his experiments on other animals, the same may be traced. "In some, says he, I perceived the appearances above described. For, pursuing the inquiry about digestion, I procured the stomachs of a vast variety of fishes, who usually die of violent deaths, and may be said to *die in perfect health with their stomachs commonly full*; and in many of these I found that the digesting part of the stomach was reduced to the same dissolved state as the digested part of the food."*

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a syllable of his matter; by me, stripplings spend their judgment as they do their estates, before it comes into their hands.—But come, my aged parents, [Ignorance and Pride,] and you my children dear, Noise, Impudence, Dullness, Positiveness, Vanity, Pedantry, and Ill-manners; and you, my sister Opinion, let us ascend my chariot."

"The goddess and her train mounted the chariot, which was drawn by tame geese," animals admirably chosen for the purpose, by their disposition to hiss and cackle indiscriminately at every thing they meet.

* Observ. p. 187.

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These passages, though not sufficient to show that "Mr. Hunter saw the animal must be in health immediately before death," may be some apology for the error of one who being himself prepossessed with the opinion, might be too forward in seeing the same in others. For this reason, I can easily believe Mr. Burns having entertained a different opinion, felt all the surprise he expresses.

As a further apology for myself, permit me to transcribe a passage from an author of the highest authority in matters relating to appearances in dead bodies, and whose familiar habits with Mr. Hunter must have furnished particular advantages in tracing the opinions of his relation and friend. Though Dr. Baillie writes with greater caution, yet it is easy to see how much he conceived a sudden or violent death, and by implication, food in the stomach, as necessary to produce *a perforation* of that organ by digestion.

"In looking upon the coats of the stomach at its great end, a small portion of them appears frequently to be thinner, more transparent, and feels somewhat more pulpy than is usual; but these appearances are seldom very strongly marked. They arise from the gastric juice resting on that part of the stomach in greater quantity than on any other, and dissolving a small portion of its coats. This is therefore not to be considered as the consequence of a disease, but as a natural effect, depending upon the action of the gastric juice on the coats of the stomach after death. When the gastric juice has been in considerable quantity, and of an active nature, the stomach has been dissolved quite through its substance at the great end, and *its contents* have been effused into the general cavity of the abdomen. In such cases the neighbouring viscera are also partially dissolved. The instances, however, of so powerful a solution are rare, and have almost only occurred in persons who while in good health had died suddenly from accident. If the powers of the stomach were little impaired by diseases, this appearance of the stomach after death would be very common. As, however, they are very much injured by most diseases, and by many are totally destroyed, this appearance very seldom takes place. The true explanation of these appearances was first given by Mr. Hunter, and published at the request of Sir John Pringle, in the Phylosophical Transactions."

Before I conclude, there are two other instances of candour in Mr. Burns's paper, which I wish to notice, as they are very likely to be overlooked by readers less interested

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ested than myself. He tells us, p. 135, that he laid the body aside in a cold situation for two days, yet that digestion continued; and at the conclusion, "that he never observed an occurrence of this kind, (solution of the bowels) but in the summer months."—If this is meant as a delicate mode of confuting one of my opinions, and a polite manner of confirming another, I shall admit that in my paper, the summer season and the warm part of the day are considered the most favourable for making such an experiment. In this, my only intention is, to show that such a temperature is more favourable for hastening those actions which induce universal death in every part. It is well known that the gastric juice retains its property in every temperature; if therefore the stomach is dead, there can be no necessity for warmth to produce its digestion.

To Dr. BRADLEY.

DEAR SIR,

HAVE the goodness to insert in your next Medical and Physical Journal, the following account of Scarlatina Anginosa, as it has appeared in this country during the greater part of last winter. My principal object in this short memoir is, to draw the attention of practitioners to the great advantages to be derived from cold affusion in the treatment of that disease. Some of your Readers may be pleased to hear an account of this epidemic as it appeared in the neighbourhood of Johnny Grott's House.

On SCARLATINA ANGINOSA.

By Mr. W. H. TORRENCE.

NO description of this disease, which has fallen into my hands, applies so perfectly to that form of it which appeared in this county in the end of the year 1809, and beginning of 1810, as that given in the Lectures of the late learned and indefatigable Professor Burserius de Kanifield. Sydenham, indeed, has given, in his usual masterly manner, a history of the phenomena of one form of this disease, the Scarlatina Simplex; but it does not appear that this accurate historian of disease, and minute observer of symptoms, ever had an opportunity of observ-

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ing it under the form of scarlatina anginosa, otherwise, it is not to be believed that so prominent a symptom as the affection of the throat would have escaped his notice.

He describes the disease as one of the mildest in its nature, requiring for its management little more than the common attentions to rest and quiet, and seems to fear worse consequences from the "nimia medici diligentia," than from the effects of the disease itself.

Doctor Cullen, it is well known, considered scarlatina and cynanche maligna as different diseases, and accordingly, in his nosological arrangement, has placed the latter in the order Phlegmasiæ, and not in that of Exanthemata. Such distinction, however, seems now to be very generally abandoned.

"It seems highly probable that these are both names of the same distemper, with some little variety in a few symptoms; and this opinion is confirmed by our finding that they are both epidemical at the same time." Vid. Heberden's Commentaries, cap. 7, § 2.

During the prevalence of the present epidemic, I have had repeated and almost daily opportunities of ascertaining the identity of these two forms of disease, and am satisfied that they stand in the same relation to each other, as the distinct does to the confluent small-pox, differing only in degree, and both deriving their origin from the same contagion.

Sydenham observes, that this disease commonly makes its appearance in autumn. In this instance, however, the epidemic first shewed itself about the close of winter, or at least did not become frequent till about the middle of January. One solitary case, indeed, I first visited on the 28th of October, 1809. It is to be observed, however, that the winter in this country was more than usually mild, and, in many respects, bore a considerable resemblance to the weather and temperature which commonly prevail in the end of autumn.

In most cases, the disease was ushered in with the usual symptoms of pyrexia, mild however in degree. Slight rigors, or at least some sense of cold, most frequently in the back and loins; head-ache; sometimes a degree of vertigo, were complained of. The tongue at first little changed from its natural and healthy appearance; but as the disease advanced in progress, it assumed a whitish cream-like covering. The pulse was not greatly accelerated; urine scanty, and of a deep brown colour.

On the third, fourth, or fifth day, the scarlet efflorescence

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cence made its appearance, most commonly first on the face, neck, or chest, to which parts, in some cases, it was altogether confined. In others, however, it gradually extended itself over the whole body and limbs, giving the whole person, in some instances, a pretty close resemblance in colour to that of a boiled lobster. The colour, on pressure with the hand, immediately disappeared, leaving the skin remarkably white, but, on removing the pressure, it almost as immediately returned.

In the course of two or three days, the colour began to fade, and a mealy or branny desquamation of the cuticle took place. At this stage of the disease, a slight degree of œdema of the face or ancles sometimes occurred.

Such was the history of the milder cases of this epidemic; and in such cases, I have no doubt the patient was safe, even in spite of the "nimia medici diligentia." In other cases, however, a more formidable train of symptoms was to be combated. The common symptoms of pyrexia, at the commencement of the disease, were attended by great dejection of mind, and apprehensions of death; deep seated pain at the back part of the head; stiffness and rigidity of the muscles of the neck; a sense of fullness in the throat; difficult and painful deglutition; pains in all the limbs; great lassitude and inaptitude to motion, indicated the approach of the worst form of the disease. In such cases the pulse was feeble and greatly increased in frequency, while the countenance exhibited, by the shrunk and flaccid features, that fear of dissolution which so frequently occupied the mind of the patient. The skin in every case was hot, but not hard, and in some the heat, as measured by the thermometer, was so high as 106° of Fahrenheit.

On examining the throat, the tonsils were found considerably swelled; in some covered with small grey coloured specks, but in others with brown coloured sloughs, discharging a sanies of most offensive odour. In several instances which fell under my observation, this slouging extended itself from the amygdalæ into the meatus auditorii, through the Eustachian tube, discharging the same offensive sanies from the external aperture of the ears. In one unfortunate boy, whom I attended, I believe the organs of hearing to be completely destroyed by the cause. In other cases the sloughing proceeded from the velum pendulum palati into the passage to the nose, and a similar offensive sanies was discharged from the nostrils.

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The practice I followed in the treatment of this disease, was extremely simple, and I have the satisfaction to say very successful.

By referring to my notes of this epidemic, I find I have attended seventy-three cases, all of which have terminated favourably. Of this number sixty-five were subjected to the affusion of cold sea-water; which was done by placing the patient on a low seat, in the middle of a large tub, and pouring the water, to the quantity of at least two English gallons, on the head and shoulders, so as to flow all over the body and limbs of the patient. The patient was then wiped dry, and immediately put to bed. The affusion was repeated as often as the return of severe head-ache and increasing heat of surface seemed to render adviseable, seldom oftener than morning and evening during the continuance of fever.

The uniform effect of the affusion was a decrease of fever, relief from distressing head-ache and pain of the limbs, followed soon after by quiet and refreshing sleep. So fully satisfied were my patients of the efficacy of this seemingly harsh measure, and so sensible of the relief they experienced from it, that it was not unusual for them to have recourse to this powerful remedy on their own accord, on the re-accession of heat and febrile uneasiness.

Of the sixty-five cases treated with the cold affusion, the disease in nineteen was completely cut short on the second or third day of its duration; in all of them, the advantages derived from it were obvious and decided. Depression of spirits was succeeded by the cheering influence of hope; head-ache and febrile heat of surface were removed, and the patient looked forward to a recovery, of which no doubt was entertained.

The remaining eight of my patients were either in so advanced a period of the disease before I first visited them, or laboured under such affections of the chest, as rendered the propriety of this treatment doubtful. In some of these, however, tepid bathing was used with very decided advantage.

In the application of the cold affusion, the very judicious and pointed directions of the late Dr. Currie, to whom medical science owes so much, were strictly attended to; "*when there was no sense of chilliness present, when the heat of the surface was steadily above what is natural, and when there was no general or profuse perspiration.*"

Thus the repeated use of the cold affusion, the application of a stimulating epithem to the throat, occasionally a blistering

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blistering plaster, attention to the state of the alvine discharge, as recommended by Dr. Hamilton, in his Observations on Purgative Medicines, constituted almost the whole of my practice in this epidemic. No bark was given in any stage of the disease; but in some of the worst cases, a little wine was recommended during the period of convalescence.

I take leave to remark here, that those gargles, so much recommended by many physicians, were, in bad cases, totally inadmissible. No gargle, whether in the common manner, or thrown in by means of a syringe, could be used without the most imminent danger of suffocation. I found, however, an excellent substitute in the following simple formula.

℞. Acet. distillat. ℥ij. Aq. fervent. ℥iv. M. et inhaletur vapor, medii et grati caloris, more solito.

It was remarkable that anasarcous swellings more frequently supervened after mild cases of this disease, than after such as in their progress had assumed a more formidable appearance. These swellings, however, readily yielded to a few doses of calomel and jalap.

If this short memoir shall have the effect of calling the attention of practitioners to the use of this powerful remedy in scarlatina anginosa, my object will be fully answered.

Thurso, County of Caithness,
April 6, 1810.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AS Dr. Hamilton, in the last Number of the Medical Journal, has requested communications from your Correspondents, relative to the pernicious effects of ipecacuanha, I am induced to send you the following fact.

Mrs. D——, a near relative of mine, and wife of Mr. T. D——, surgeon and apothecary, at Winborne in Dorsetshire (to whom I was an apprentice) was, during some years of the early part of her marriage, subject to most violent and frequent attacks of dyspnœa catarrhalis, which (not being relieved by any means that could be devised) rendered her situation truly miserable; at length Mr. D.

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accidentally met with an old magazine, in which a similar case of the wife of another medical man was recorded; and which was found to have been occasioned by the effluvia of ipecacuanha. It soon appeared (by experiment) that Mrs. D——'s complaint arose from the same cause; and from that time (the greatest care being taken in the use of the drug) she was freed from the disease; I however recollect, that frequently when it was used in the house, although she was at a distant part of it, she would be aware, from her sensation, of what was going on.

I am, &c. WILLIAM TOWSEY.

Lymington, April 9, 1810.

CRITICAL ANALYSIS
OF THE
RECENT PUBLICATIONS
IN THE
DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

A Scientific and Popular View of the Fever of Walcheren and its Consequences, as they appeared in the British Troops returned from the late Expedition; with an Account of the Morbid Anatomy of the Body, and the Efficacy of Drastic Purges and Mercury in the Treatment of this Disease. By J. B. DAVIS, M. D. one of the ~~Physicians appointed by the Medical Board to attend the Sick~~ Troops returned to England. 8vo. 224 pages. London.

A MORE important subject than the fever of Walcheren cannot well be fixed upon by the physician for investigation, whether he considers it with respect to its source and origin in soil and climate, in order successfully to resort to prophylactic means against its invasion, or examines the nature, tendencies, and diversified phenomena of the fever itself, both with a view to reduce it to a mild and manageable type, as well as to avert the complicated and fatal consequences of one of the direst diseases that ever appeared in any temperate region. Dr. Davis has imposed upon himself a task of difficulty, though of great public moment, in undertaking to lay before the world an account of a disease, that has, from its unexampled violence and fatality, called forth the attention of men distinguished in medical science. Nevertheless, he has accomplished his object with that success and credit to himself, which cannot fail of making his work a valuable and acceptable present to others. It is necessary, for the information of every practitioner in our own

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age, and of ages to come, to be in possession of a record of the Walcheren fever and its consequences, both with a view to trace its analogy with the fevers of the marshes of Lincoln, Kent, and Essex, and to judge of the efficacy of certain remedies for their removal. Sir John Pringle and Cleghorn have described the symptoms and appearances of remitting and intermitting fevers with accuracy, but they are both defective in minutiæ, and, above all, in that very interesting and useful part, the dissections, which our author presents us with in a particular and general manner. In this interesting work, we have pleasure in saying that we discover skill, perspicuity of expression, and a spirit of investigation, which pursues its aim with energy. In it we moreover find many luminous views of several diseases arising out of the primary fever, and incidental remarks which reflect credit on the author's judgment and learning.

A work of the above description is much wanted, on account of the scantiness of our present information on the Walcheren fever, and the discordant statements hitherto given, leaving the philosophic mind but little reason to be satisfied, and affording it but little ground for reflection. We are glad that the ideas which the author imparts to his readers, do not appear to have carried him beyond the limits of his personal experience, which seems every where corrected by his own good sense and acute observation. Dr. D. is already known by his French work, on the diagnosis of death and precipitate burial, and in the literary world by his History of Nice, &c. &c.

The author begins this work with an ample introduction on the Medical Topography of Zealand, and considers philosophically all the local and general causes which conspire to render the island of Walcheren so insalubrious. "Much of the tendency to disease in Zealand, and in Walcheren, seems to depend on local causes on its sea-line; for it has been confidently asserted by several writers, that there is a peculiar species of damp exhalation, which rises from the slime and mud laying on the beach, during the recess of the tide, and which has been thought more liable to produce bad effects, (for moisture always debilitates the body, and disposes it to disease,) from some chemical causes supervening from the mixture of the drainings of the land with the salts deposited on it, and, perhaps, with a portion of that putrescent phosphoric matter, which is known at times to be copiously distributed over the surface of the ocean.",

Many curious circumstances are noticed, whereby the unhealthiness of the season may be detected, by observing the degrees of moisture beneath and upon the surface of the soil. He shews, (what few persons are inclined to deny) that bad water, exposure to inclemencies of the weather, fatigue, and moisture, all concurred to predispose the troops to fever, but that marsh miasmata were necessary to call the disease into action. The unhealthiness of the island of Walcheren, he evidences in the constitutional character

racter of the inhabitants. "The general constitution of the adult here, is that to which ancient physicians have given the name of phlegmatic. The organization, in short, is feeble, the complexion sallow, the body bloated, and frequently anasarcous, and all the grand functions of life are weakly and incompletely performed. The women, like the men, have a natural weakness of constitution, and become old at an early period of life."

Here follows from the public documents, detailed reports of the sick, their state at Colchester and Ipswich, and a narrative of the author's appointment. He has seen the same fever in some French troops at Argues Martes, and in Piedmont.

We learn at the conclusion of the introduction, and in the two first sections, that the common type of the Walcheren intermittent, as it appeared in England, was the double tertian, and meet with some interesting inquiries into that very important point, the appearance of the fever, posterior to the arrival of the sick on our own shores. The author conceives this to be rare. He does not, however, deny that it may declare itself in individuals returned to England, who were well while abroad; and admits that there is no fixed period for marsh miasmata to operate on the system, of which the instances wherein the fever has not appeared till after the return of the troops to England, are proofs. "There is not that I know of, any particular and definite period for the reception of marsh exhalations into the system, and their action upon it. They have occasionally been found not to operate until weeks after the person has been exposed to their influence. There are certain symptoms, which, were they accurately noticed, such as debility, an oppressio virium, nausea, and head-ache, with which men were frequently seized before the fever appeared, indicative, in my opinion, of the difficult admission of the miasmata into the system, which seemed to await for some favorable change; as that, for instance, occasioned by exposure or irregularity of any kind, that would favour their entrance into, and operation on it. In every instance of disease, as far as I could ascertain, that fell to my lot to inspect, remission or intermission of the fever more or less evident, occurred, and I was left ignorant of this, its true appearance and character, from the imperfect representation of the sick; it was usually confirmed in the presence of those consequences which it is known invariably to entail. Admitting, however, that the fever had not, in every case, manifested itself in Walcheren, it merely proves, that with a predisposition existing after the application of the exciting cause, the constitution, under particular circumstances, had the power of suspending the action of miasmata for a time, but ultimately yielded to their influence when such a power ceased to act."

The author proceeds to give a definition and explanation of the type of the fever; first observing, that it assumed the quotidian, tertian, double tertian, quartan, and even remitting type; of all these, the double tertian was the most common, frequently forming the *anticipating and retarding intermittent*, by the hastening or protraction

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traction of the return of the exacerbations. "Sometimes a period of the fever," he observes, "was regular, that is, during the period there was but one paroxysm and one interval." Generally, however, he says, "instead of one paroxysm and one interval in each period, there were two intervals and two paroxysms, differing, however, materially, as to the violence and duration of symptoms, the hours of invasion, time of decline, and termination." He mentions, "that this type variously anticipating and p stponing, gave a peculiar mixed character to the disease, rendering it anomalous in nature, and tedious to the practitioner to treat." He remarks, too, "that there was a variety of the disease, in which, on one day, there were two paroxysms, and on another, only one, while in other species of the fever, there has appeared to be a constant succession of paroxysms, one beginning as soon as a preceding one had ended." The author shews that the fever anticipated so much in some cases, that so many hours were gained, as to give a new character to the type, and even to make it resemble remitting more than intermitting fever. He dwells with great exactness on its irregular tendencies, and shews discernment in representing all the varieties of the double tertian type. The author confirms the observation of Clark, Fordyce, and Cleghorn, of the retarding paroxysm frequently failing to return in the night time, and of occupying again, in succession, the diurnal hours as before; a circumstance that he thinks contributed to change and modify the type anew.

In the next place, the author enumerates the irregularities which occasioned the double tertian type to change its course, and to become confused. Amongst these, we *find debility*, prolongation of the paroxysm, and visceral disease mentioned. He considers that these were the principal causes of such accidents, and very rarely an inflammatory diathesis. When, however, this did prevail, its force seemed much directed against the viscera of the abdomen, constituting a disease which the ancients called *assodes*.

The following section is devoted to an investigation of particular phenomena. The author's observations on the pulse are ingenious, and contain an account of various distinctions in the pulsations of the artery, which are applicable to the subject of fever in general.

The inferences he draws from the state of the brain, the tongue, the skin, the bowels, from external signs, and various phenomena, the secretions, &c. are all deserving of the highest consideration, and aid materially in forming a true prognosis. The whole of these are interspersed with appropriate illustrations. In the pathological view of the fever, the author takes some pains to shew that through the medium of nervous agency, marsh miasmata may produce vascular derangement, and this, at length, terminate in plethora of the venous system, which the author is inclined to believe is the cause of the torpor that precedes the exacerbation. "That venous plethora seems to have its origin in diminished nervous energy, is rendered probable by the dejection of spirits, the loss of muscu-

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lar power, and the general debility which attend this fever in all its stages; also by the tendency there is in certain parts to be attacked with spasm when this disease inclines to a fatal termination. Such appears to me to be the cause of congestion in those organs whose vascular system is almost wholly venous, and in which the circulation is naturally slow, and liable to interruption." The author admits that torpor may be also occasioned by debility; but as he always found the venous system turgid with blood, at whatever period of the fever the patient died, he conceives this plenitude may, in its turn, become a cause of torpor, and ultimately of a paroxysm. The ratio symptomatum is methodical and excellent.

The predisposing, concurring, and exciting causes, occupy another section; after which, the treatment of the fever is noticed. This, the author comprises principally under the head of tonic, purgative, and mercurial. We refer the reader to the numerous remarks he has made on cold affusion, tobacco, opiates, ligatures, emetics, bleeding, and various other expedients, to shorten the fit, and render it less violent. The numerous complications of the fever, and its combination with visceral disease, rendered bark a very ineffectual, nay, sometimes an injurious remedy. The author found there was no security against a relapse, nor any hope indeed of recovery, but where mercury was had recourse to, and persisted in for a great length of time, until all induration and vestige of visceral disease were removed. He also considers the efficacy of drastic purges so great, as even to rival the power of mercury in many instances. Upon this subject, he observes, that "far from thinking that drastic purgatives proved ultimately injurious, by favouring relapses, as Fordyce and Gregory the elder, pretend: I have no hesitation in saying, that when they were repeated at proper intervals, they not only diminished the tendency to relapse, but carried off the congestion of the abdominal viscera when other remedies failed; and proved the most effectual preventive of dysentery, arising from chronic inflammation of the intestines, a state that first induced diarrhœa, and always ended in that disease." He says too, "I am inclined to think that drastic purgatives, in a great number of instances, as the cases I shall insert will shew, were often more serviceable than mercury, in diseases of the spleen, liver, and intestines." Again, "I invariably found that those cases which were treated with drastic purgatives, were rendered milder and more tractable, and ceased infinitely sooner than the others; nay, I observed that while some patients were sinking under the use of bark and mercury together, others taking purgatives and mercurials were fast regaining health." The author condemns the indiscriminate and free use of mercury, and thinks that much harm has arisen in the practice of medicine, from doing what is quaintly called *pushing the mercury*. He condemns bleeding, except in particular cases. Observations then follow, on the employment of the auxiliary remedies, iron, nitric acid, and sulphate of copper. It is not in our power to make extracts of his remarks on all the various

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ous remedies he employed. We must, therefore, again request the reader to supply this deficiency, by a reference to the work itself.

From the treatment, the author proceeds to speak of the dreadful consequences entailed upon the constitution by the primary fever, which, independent of organic disease of the liver, spleen, and other viscera, we find to consist in diarrhœa, dysentery, ascites, anasarca, hydrothorax, hydrops-pericardii, anasarca pulmonum, dropsy of the brain, and jaundice. He takes occasion here to consider in a very ample manner chronic dysentery, which he refers to his favourite theory of venous plethora of the abdominal viscera, and sometimes to a vitiated quality of the bile, which to us appears to be the best founded opinion. He supposes that dysentery may originate from the same cause as fever, (which few are inclined to contest,) and dwells upon the success that attended the use of drastic purgatives in averting this worst and most irremediable termination of the disease. He mentions that the diarrhœa which preceded chronic dysentery, was only to be removed by drastic purgatives. "I was latterly so satisfied of the efficacy of drastic purgatives in these chronic diarrhœas, accompanied with obstructions of the liver and spleen, that I, at their first developement, instantly proceeded upon this treatment, and do not entertain a doubt, but that I frequently thus prevented dysentery from supervening." Patients either died dysenteric, dropsical, or expired from debility. It was no uncommon circumstance for a protracted and violent paroxysm to be followed by a sudden effusion in the chest, in which case the fever had rather a continued form than the intermitting type. "But the phenomena indicatory of effusion in the thorax, have not always come on gradually, and been combined together; for they sometimes, after a severe paroxysm of ague, invaded suddenly and with severity, putting an end to the patient's life in thirty-six hours. Nay, I have known men who were convalescents, attacked unexpectedly with a paroxysm of ague, which has terminated in effusion into the chest, and quickly destroyed the patient." The author next informs us, that one of the most formidable irregularities of this disease was pneumonia. In the preceding sections, he dwells at length on other irregularities, as congestion of blood in the liver and spleen, inflammatory affections of the abdominal viscera and diarrhœa; but he considers pneumonia as a combination with the primary fever, rather than a consequence of it, and proposes venesection as the only remedy, even in advanced stages of the Walcheren fever.

The book concludes with particular dissections, and a general view of the morbid anatomy of the body, a part which is extremely valuable, and arranged with precision and perspicuity. For the convenience of the reader, the whole of the morbid appearances are brought together, and the ravages committed by the fever on the viscera of the head, chest, and abdomen thus presented at one view. This is far too copious for us to make extracts from. We shall, however, observe, that it would have contributed much to

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the completion of this useful book, had a few plates been introduced, illustrative of the morbid anatomy.

It is impossible, in the narrow limits assigned to a review, to enter more fully into the merits of this work. Suffice it here to say, that the fever and its consequences are traced with care and accuracy, that we consider it a valuable acquisition to a medical library, and recommend the perusal of it to our readers. It seems calculated, like the works of Cleghorn and Sir John Pringle, to be particularly worthy the attention of military practitioners. The whole book is interspersed with illustrations, and contains more research than could have been expected in the short time the author has had to compose it.

A new Family Herbal, or Popular Account of the Natures and Properties of the various Plants used in Medicine, Diet, and the Arts. By ROBERT THORNTON, M. D. 8vo. pp. 888. London.

MANY doubts have arisen on the utility of popular works on medicine, and the subject has, at various times, undergone much discussion; yet the question may still be considered as in a great measure undecided. For our own part, we confess, we do not think a science which, of all others, requires the extensive exercise of the highest powers of the mind to attain, and the practical application of which is admitted to be so difficult, can by any possibility be communicated in a compendium. When men who devote their whole lives to the cultivation of medical science, and who possess a fair share of abilities, and who are not deficient in industry and application, so often fail in their attempts to discover the real nature of a disease, and are frequently foiled in their endeavours to remove it, how shall we expect so difficult a task to be accomplished by a superficial acquaintance with a few general rules which are founded in empiricism, and calculated rather to mislead, than to inform those who consult them? While, however, there is such a propensity in mankind to quackery, and the practice of dabbling in medicine is so prevalent, we should be glad to see it productive of the least possible mischief; and surely a step would be gained, if the deleterious metallic poisons, such as calomel and arsenic, were banished from domestic use, and the good Lady Bountifuls were again to be employed in culling simples for posset and sovereign ointments. On this account we congratulate Dr. Thornton on the appearance of his book, which is calculated to inspire in its readers, a taste for botanical pursuits, and to attract their attention to the medical virtues of the vegetable tribes, which have perhaps, especially our own indigenous plants, been too much overlooked and neglected, even by physicians themselves.

The work is dedicated to Dr. Duncan of Edinburgh, and we shall transcribe the following passage in the dedication, as in some degree explanatory of the nature of it, and of the author's plan in the arrangement of his subject.

"A desire

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"A desire to become acquainted with the virtues of plants seems to have been coeval with the first dawn of knowledge; but the figures contained in the books treating of these subjects are so inaccurate, and the descriptions so vague, credulous, and, in every sense, so gross and vulgar, that mistakes are unavoidable, and false properties were bestowed on the most common and trivial plants.

"The Medical Botany of the ingenious and able WOODVILLE cleared much rubbish from this Augæan stable, but the expensive mode of its publication deterred many practitioners, and families in general, from the purchase; there was, therefore, wanted for general and ordinary use a companion to your useful and perfect *Pharmacopœia.* Nothing more was required than simply to tread in your foot steps, adding figures by such an artist as Bewick, and correct descriptions, with the addition of some general prescriptions, combining at the same time from all authors whatever related to the subject. This could not be accomplished in a *pharmacopœia*; the present work, therefore, is presented to the world as a more complete and perfect herbal than has hitherto appeared; and as intended to unite the various advantages that have been derived to science from your 'Edinburgh New Dispensatory.' I take this opportunity, therefore, to acknowledge the source of much of my information, which I would not, indeed, disfigure by a change of words, but have generally transcribed from your work, so that considerable part of the merit which may be found in this Herbal must in justice be ascribed to your industry and intelligence; and I hope and trust, that the very superior engravings of Bewick will render it in every respect a useful introduction to Pharmaceutical Science."

Although the Doctor was unwilling to disfigure that portion of information he has transcribed from the Edinburgh Dispensatory, by a change of words, we do not think that enclosing it by inverted commas would have had that effect; and his readers would thereby have been better enabled to distinguish what is his own from what he has derived from that source. In many cases, perhaps in all, as the herbal is intended for a companion to the dispensatory, a reference to the latter book would have been preferable to a long quotation, which when frequently repeated, contributes to swell the volume to rather an enormous size. The same remark applies to the prescriptions, and with redoubled force, since the formulæ are copied from the London Pharmacopœia of 1787, although the new one had appeared some months previous to the publication of Dr. Thornton's book.

The doctor has also added the culinary properties of many vegetables, and has enriched his book with numerous recipes for making wines and other domestic preparations from the various plants he has described, all which cannot fail of being acceptable to the class of readers for whom his work is principally intended: at the same time, it would be injustice to deny, that much valuable information

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information on the medical virtues of different substances may be obtained from it by the medical practitioner, who will often see the result of extensive experience, and numerous fair trials, accurately and candidly stated under the respective articles.

We give the following extract as a fair specimen of the plan and execution of the work.

"COMMON MEADOW SAFFRON.

"COLCHICUM AUTUMNALE.

"*Class* VI. Hexandria. *Order* III. Tryginia.

"ESSENT. GEN. CHAR. *Corolla* six-parted: *Tube* radical: *Capsules* connected, inflated.

"SPEC. CHAR. *Leaves* flat, lanceolate, erect.

"DESCRIPTION.—The root is a double succulent bulb. The flower is large, of a purple colour, and comes directly from the root. The leaves appear in spring, and are radical, and spear-shaped. Corolla consisting of a single petal, divided into six lance-shaped erect segments. Capsule three-lobed, divided into three cells, containing globular seeds, which are not ripened until the succeeding spring, when the capsule rises above the ground upon a strong peduncle.

"HISTORY.—Meadow saffron is a perennial bulbous-rooted plant, which grows in wet meadows in the temperate countries of Europe. It flowers in the beginning of autumn, at which time the old bulb begins to decay, and a new bulb to be formed. In the following May the new bulb is perfected, and the old one wasted and corrugated. They are dug for medical use in the beginning of summer. The sensible qualities of the fresh root are very various, according to the place of growth, and season of the year. In autumn it is inert; in the beginning of summer, highly acrid: some have found it to be a corrosive poison; others say they have eaten it in considerable quantity without experiencing any effect. When it is possessed of acrimony, this is of the same nature with that of garlic, and is entirely destroyed by drying.

"MEDICAL VIRTUES.—Stoerck, Collin, and Plenk, have celebrated its virtues as a diuretic in hydrothorax and other dropsies. But it is at best a very uncertain remedy. The expressed juice is used in Alsace to destroy vermin in the hair.

"From various observations on the effects of colchicum made by baron Stoerck, and especially upon the infusion of three grains of the fresh root in four ounces of wine, he remarked that its diuretic power was very considerable, and therefore concluded, that if its deleterious acrimony were destroyed, it might prove in this character an efficacious medicine: accordingly, he digested an ounce of the recent root, sliced in a pound of vinegar for forty-eight hours with a gentle heat; the vinegar being then strained, it proved acrid to the taste, constringed and irritated the fauces, and excited a slight cough; to obviate which, he mixed the vinegar with twice its weight of honey, and gently boiled it down to the consistence of honey, forming an oxymel sufficiently grateful; and which,

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which, taken in doses of a drachm, promoted a copious discharge of urine, without producing any inconvenience from its acrimony, though it moderately stimulated the fauces, and absterged the mucus. Thus, like the squill, it was found both expectorant and diuretic; and the successful use of this medicine, in various hydropic disorders in the hospital at Vienna, equalled the baron's utmost expectations. He recommends, at first, a drachm of the oxymel to be given twice a day in any suitable vehicle, and gradually to increase the dose to an ounce or more in a day. Many other practitioners, who employed the oxymel colchici in these complaints, also experienced its good effects, especially in Germany and France, where it continues to be a favourite medicine; in England, however, the colchicum has been less successful, and is very generally thought a less efficacious diuretic than the squill, which excels it still more as an expectorant. The London College, conformably to the practice of Stoerck, directs an oxymel colchici, and that of Edinburgh a syrup; the latter, however, differs from the former only in using sugar instead of honey.

"PREPARATION.—Syrup of Colchicum. (Syrupus Colchici Autumnalis, E.)

"Take of colchicum root, fresh, cut into thin slices, one ounce; vinegar, sixteen ounces; double refined sugar, twenty-six ounces: Macerate the root in the vinegar two days, occasionally shaking the vessel; then strain the infusion with gentle expression. To the strained infusion add the sugar, and boil a little, so as to form a syrup.

This syrup seems to be the best preparation of the colchicum. We must take care to gather this root in the proper season; and from [to] errors in this particular we are to ascribe the uncertainty in the effects of this medicine as found in the shops. It is chiefly employed as a diuretic, and may be taken from a drachm or two to the extent of an ounce, or more.

"Oxymel of Meadow Saffron. (Oxymel Colchici. L. D.)

"Take of the fresh root of meadow saffron, cut into thin slices, one ounce; distilled vinegar, one pint; clarified honey, two pounds by weight. Macerate the root of meadow saffron with the vinegar in a glass vessel, with a gentle heat, for forty-eight hours. Strain the liquor, pressed out strongly from the root, and add the honey. Lastly, boil the mixture, frequently stirring it with a wooden spoon, to the thickness of a syrup. This is an active preparation, but its use may be entirely superseded by the syrup of the same root. The dose given is a drachm to half an ounce."

Every plant described is accompanied by an engraving; these, as may be expected, in so numerous a list, are of unequal value, some very accurately representing the plant for which it is designed, and others being not quite so fortunate. The articles follow according to their botanical arrangement, and the want of an index is much felt, for he who wishes to see the description of any particular plant, and is unacquainted with its class and order, has no

other

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other resource but the running title to guide him in his search; this is certainly no small inconvenience in consulting a bulky volume like the present one. It is not our intention to search for and detail little errors and inaccuracies, for such must occur in every book of considerable size, but we certainly were a little surprised by the Doctor's remark, (p. 20.) that Turner's Cerate received its appellation because it is used in curing *the wounds of turners*; we had always thought it derived its name from the Inventor, who first recommended it as possessing very healing qualities, on which account it was adopted by the London College, under the title of Ceratum Epuloticum. We do not however often meet with similar errors, and are persuaded this must have escaped the author's notice.

We shall here finish our few remarks upon Dr. Thornton's work, and we hope they will be received in the same spirit in which they were written, as hints for the improvement of a future edition, which we have no doubt it will speedily attain; and we flatter ourselves that the author will coincide with us in opinion, that the book would not be injured, but rather improved by a careful and judicious curtailment, as well as a proper Index.

Edinburgh Journal. No. xxii.

Article 1.—*Observations on the Digestion of the Stomach after Death.* By Allan Burns, Member of the Royal College of Surgeons in London, and Lecturer on Anatomy and Surgery in Glasgow.

Mr. Burns observes, that in dead bodies, the stomach has repeatedly been found eroded, where the previous symptoms gave no reason to suspect such an occurrence. This has been attributed by Mr. Hunter, to the action of the gastric juice, and Mr. Burns agrees with him in this opinion. Mr. Hunter, however, thought that the gastric juice, which was already poured into the stomach, effected this change. Mr. Burns seems to think differently, and states several cases wherein erosion had taken place at parts of the stomach, which could not have been acted upon after death by the contents of the stomach, and therefore that some other cause must be sought for.

He thus sums up his opinion: "If, then, the stomach was not acted on by fluid contained in its cavity, how came it to be dissolved? To me it appears, that we cannot, with propriety, ascribe the digestion of the stomach, in every case, to the gastric juice which has been poured into the cavity of that viscus. We are more properly to refer it, in some instances, to the action of the gastric fluid retained in the vessels which had secreted it. If this be admitted to be a correct explanation of the fact, that the fore-part of the stomach is sometimes digested by the gastric juice, we shall cease to have any difficulty in accounting for the dissolution of other parts of this viscus, besides the large end. We shall learn, that the part acted on must vary, according to the place of the stomach where

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where the gastric juice is retained in the apparatus which secreted it, and thus we shall be enabled to explain some cases, which, at present, seem to be in opposition to the observations of Mr. Hunter."

The author states some points, in difference between Dr. Adams and himself, upon this subject, who, he imagines, has mis-apprehended Mr. Hunter's opinion as to the state of previous health or disease, in which this erosion of the stomach could take place. It is superfluous for us to enter into this question, we shall refer our readers to a paper contained in a former part of this number, wherein Dr. Adams has entered pretty fully into the merits of it, and defended the statement he had given of Mr. Hunter's opinions. We shall only observe in conclusion, that we do not exactly coincide with the author in opinion, that "poison has been called in to account for the appearance; and thus the life of the person supposed to have administered the deleterious substance might, it is evident, be brought into danger."

We think there is not any medical practitioner, who would in a judicial investigation, attribute erosion of the coats of the stomach to poison, unless it was accompanied by evident marks of previous inflammation, or with gangrenous appearances; perhaps, in such serious circumstances, he would not positively affirm it without discovering some of the deleterious substance among the contents of that viscus.

ARTICLE 2.—*Regulations with regard to the passing of Conscripts for the French Army.* Extracted from the Code de la Conscription.

IN France, there is not that discretionary power vested in the military surgeons, which exists in this country, of determining on the ability or disability for duty of individuals liable to military service; the regulations on this head, enacted by the government, are minute, and the execution of them are entrusted to the municipal and central administrations, who are to decide on the validity of the surgeon's opinions, and even the examinations of the conscript, are to be made in the presence of the administration, or if the conscript is unable to attend the Board, in that of a delegate from it. "Officers of health, and others convicted of having given a false certificate of infirmities or inabilities, or of having received presents or gratifications, shall be punished by not less than one, or more than two years imprisonment, or by fine, not less than 300, or more than 1000 francs."

The regulations by which the officers are to be governed in their opinions, are contained in two tables; the first, contains a list of "evident infirmities, implying absolute incapability;" the second is entitled "infirmities or diseases which occasion absolute or relative incapability for military service, and which are reserved for the examination and opinion of the central administrations of the department." Some of these infirmities, only entitle to a provisional exemption, and every care seems taken to guard against abuses of indulgence. The

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The following passage will convey an idea of the rigid rules which are observed in the examination of conscripts.

"We know that young people in the country are more subject to those affections, (rheumatic) than those in towns, and that in some kind of abodes, they are more easily contracted. Joining all these data, combining and comparing them together, the surgeons may commonly distinguish a real affection from a feigned one. As it is but just that, in some other equivocal cases, such as those respecting the diseases of the breast, humanity should incline to the conscript's side; so, with respect to pains and rheumatisms, which are not proven, it is equally proper to prefer severity to indulgence, as military exercise, far from aggravating this predisposition, if it exists, will only contribute to remove it."

ARTICLE 3.—*Letter from Professor E. M. of Rosenschoeld, of the University of Lund, in Sweden,* to C. CHISHOLM, M. D. F. R. S. &c. Communicated by Dr. Chisholm.

IN a former Journal, p. 166, we gave an account of a paper on the Lues Bovilla, by Dr. Chisholm, to which this may be considered as a supplement. It consists of certain questions, addressed by him to Dr. Florman. Professor of Anatomy in the University of Lund, in Sweden, together with the Professor's Answers. Dr. Florman himself has never seen this disease, it not having occurred in Sweden since the year 1766, nor in Denmark since 1772; "but to judge from the best Swedish and Danish descriptions of the disease, it comes nearest to the Pestis Bovilla of Lancisci, and to the Lues Bovina described by Ramanzini and Camper." The pustular eruption, however, has not been a constant symptom in those northern climates, but more frequently wanting. Although the pestis bovilla has not appeared in Sweden for so long a period, a disease somewhat similar frequently occurs, which the author describes as a malign fever, united with anthrax, which most often kills before the third day. He says, "this disease is very different from the genuine pestis bovilla, and I have never seen or heard of the latter arising from the former. It prevails in the warmer summer months, and ceases of itself in the autumn or sooner." It seems to depend upon local circumstances, and arises in some places without having been brought to them by contagion. Having in our former remarks pretty fully considered Dr. C's opinions, we have little to add. We think, however, that the inference drawn by Dr. Chisholm, of the identity of the pestis bovilla in Europe, with the disease that prevailed in Grenada in 1783, requires further support to establish it completely. No circumstance is more worthy of remark, than that although such deleterious and fatal effects arise in the intertropical climates, from eating, or even handling the flesh of animals dying of the disease, no such effects take place in Europe in the true pestis bovilla, where the disease is entirely confined to a single species of animal, while yet the malign fever with anthrax in Sweden, frequently attacks at the same time horned cattle and horses, nay, also the human species: this was precisely the case when

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when the cynanche maligna raged at Grenada in 1783, for Dr. C. does not fail to remark its concomitancy with a contagious distemper epidemic among the cattle and mules in the same parts of the island where the cynanche maligna appeared.

We subjoin the following quotation on the subject, of the resemblance of the pestis bovilla with the small-pox.

"*Q. 5th.* Are there any good reasons for believing, that the Pestis Bovilla partakes of the nature of variola or small-pox; and, that the disease may be communicated like it by inoculation? And have any attempts been made in Sweden or Denmark to ascertain this?

"*A.* I cannot find that the true Pestis Bovilla corresponds with variola in mankind. At least, the elevated pustule ought to be, in that case, a more constant and general symptom of this plague. It can, nevertheless, as other contagious complaints, be propagated by inoculation, of which we have a number of examples, as well in Holland as in Denmark, where many of the inoculated cattle had recovered, and since not been contaminated by other sick cattle. For the inoculation has commonly been used the matter which discharges from the nose of the sick cattle."

ARTICLE 4.—*Case of disordered Alimentary Canal, supposed to have arisen from the Person swallowing a Skein of Cotton several Years before.* By Mr. FINCHAM.

A lady of 25, accidentally swallowed a skein of cotton; no inconvenience was felt for three months, when upon being electrified, she was seized with violent pain in the stomach, without sickness; the pain returned every day for some months. From a friend's only requiring her to take food, says the author, she became sick, and vomitted the cotton, which, from being white, had acquired a permanent green colour, but was little changed in texture; much general indisposition remained for seven or eight months, but she afterwards enjoyed good health.

Then follows a diary of the symptoms and mode of treatment of a case of constipation, in which we can trace no connexion with the skein of cotton that had been previously swallowed, but in which we clearly perceive the beneficial effects of the purgative plan of treatment carried to some extent, as recommended by Dr. Hamilton. "May 17. The bowels were relieved in the night of the 15th and yesterday morning, of hardened fæces to a prodigious amount." Blister after blister was applied to the stomach, and small doses of calomel (that modern panacea) with hyoscyamus, were given in pills; it was only, however, by repeated purgatives, that relief was afforded and amendment produced. "23d, a senna mixture was substituted for the pills." "25th, did not begin the mixture till noon yesterday. She has had three copious evacuations, the first extremely offensive. This operation has produced considerable amendment." It is unnecessary to detail the remainder of the case, as it consists of similar reports; amendment when the bowels were kept free, and, as might be expected, aggravation of the symptoms when this was at any time neglected.

ARTICLE

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ARTICLE 5.—*On the Treatment of Ganglia by Escharotics.* By JAMES WOODHAM.

"GANGLIA, says the author, though not frequent, are far from being uncommon; and as they always prove inconvenient to the patient, and sometimes troublesome to the surgeon, under the means usually employed for their removal, the annexed cases, treated successfully by a mode somewhat novel, will not, I trust, be unacceptable to the profession."

Two cases are given, in which the treatment consists in applying a blister to the tumour, removing the detached cuticle, and plentifully sprinkling the cutis with the oxyd of arsenic in powder, and repeating this every day, till a complete eschar was formed. To procure a separation of the eschar, and to remove the inflammation that had been excited, an emollient poultice was applied morning and evening. In ten days the eschar was completely formed, in a fortnight it was thrown off, leaving a healthy ulcer the size of a shilling, which was daily dressed with an ointment of wax and oil, occasionally sprinkling it with nitric oxyd of quicksilver. The whole process of cure took up in each case, something less than three months.

ARTICLE 6.—*Observations upon Ulcers of the Leg.* By JOHN WEBB, Surgeon.

THE author has in this paper presented to us some observations, with an attempt to explain the principle which should be kept in view in the treatment of the irritable ulcer. The worst cases, he says, which have come under his care, have been attended with the following character: "the constitution is affected with debility; the digestive powers are impaired; the function of the liver is diseased; the circulation is hurried; an anxious watchfulness is depicted upon the countenance; and, from the general irritability which pervades the whole constitution, the patient is seldom relieved by the soothing tranquillity of sleep." His peculiar treatment we shall give in his own words.

"The motives which induced me to depart from the regular routine of practice, were from a case where every known application had been tried, without procuring the wished for effect. Here the constitution was greatly disordered. In this case, the applications which alleviated the sufferings of the patient most, were fomentations and poultices. Seeing the sufferings of the patient were quelled for a certain time, I was led to consider why the poultice should act thus beneficially for *a time*, and no longer, and this whether the application was warm or cold. The conclusions which I drew, were, that the *secreted pus* must act as an irritating cause, and the patient was easy as long as the poultice *absorbed the secreted pus*, and kept the surface of the sore clean, and not from the sedative effect of the application, as is generally supposed. The next visit, I dressed the ulcer with two folds of dry lint, over which linen was to be kept wet, with an evaporating lotion, to allay the surrounding inflammation,

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inflammation, and keep the edges of the lint from adhering to the sides of the ulcer, which was to be removed immediately when the patient experienced any pain, and fresh dressings to be substituted. The success which attended this practice, surpassed my most sanguine expectations. In the short space of ten days, an immense chasm was filled with strong healthy granulations; the edges under this treatment were kindly cicatrizing; a diseased constitution was rapidly restored."

(To be Continued.)

Report of the Diseases of Edinburgh for March, 1810.
By JOHN ROBERTON, M. D.

The weather, on the commencement of the month, was for some days cloudy, and we had several showers of rain. In addition to this state of the weather, we had, till the middle of the month, occasional falls of snow, with some intervening clear days. The weather then became pleasant, and continued so till within a few days of the termination of the month, when it again became cloudy, and so continued till the end.

The Barometer continued rather low during the whole month.

The Thermometer stood about 40, or between that and 35 during most part of the month. Toward the end, however, it was sometimes as high as 55.

The diseases which have been most common were chin-cough, some cases of measles, inflammatory complaints in general, severe cases of diarrhœa, often attended with an affection of the stomach, chronic catarrh, and fevers of various degrees of violence; some of them of a bad kind, running their course in a few days, while, in many instances, some were protracted a very long time.

Chin-cough has greatly increased since last Report, both in extent and in severity. There are parts of the City so completely infested by it, that almost every infant has been affected by that distressing malady. In the present, as in most instances of contagious disease, I have been at some trouble in endeavouring to trace the place where it first originated. The result of my investigations on this subject, I have detailed in my lately published work on Medical Police, &c. &c.; therefore I shall not now dwell upon it. I have in these investigations always found that those diseases originated in low ill-aired places, and, in the present instance, have traced it to Canal Street, situate on the banks of the remaining marshes of the North Loch. This nuisance, though much diminished of late years, still con-

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tinues to vitiate the surrounding atmosphere, and with the assistance of the putridity generated in the shambles, almost immediately in the same neighbourhood, probably gave rise to the disease. This method of attempting to account for the generation and propagation of these always distressing, and too often fatal diseases, carries with it proofs of a seemingly incontrovertible kind. It teaches us that cleanliness ought not only to be considered as an ornament to our persons, but highly beneficial; not only in the prolongation of our lives, but also of those who, although at some distance from such places, may have their health injured by their existence.

The measles have not increased either in extent or severity since last month, neither do they seem to have abated, as in various families the disease is to be found.

Although inflammatory complaints have neither been so general nor so severe during the winter, as in almost every previous year, yet there has constantly existed a sort of inflammatory diathesis, which from time to time has appeared in various forms, and under various states of severity. Indeed, although none of these inflammatory affections have individually been very widely diffused; yet there is, perhaps, scarcely one variety of them in the whole of Cullen's arrangement, but has been met with. Thus it would appear, that what we have gained by their severity being less conspicuous and less fatal, we have lost by the number of such affections being increased, and consequently, by the general state of health being more widely disordered.

There have appeared some very severe cases of diarrhœa, of a degree of obstinacy much beyond what we usually meet with in practice. Although many cases of this disease seemed to owe their existence principally to a disordered state of the intestinal canal, independently of any affection of the stomach, yet in a great variety of instances, it was accompanied by an evident affection of that organ. In the first, purgative medicines alone, with, in a few instances, the use of the warm bath, entirely removed them. But in the other, which was often accompanied by severe head-ach, pain of stomach, with frequent and severe sickness and violent retching, the practice necessary for their removal required much greater discrimination. In many of them purgatives were, on their administration, instantly vomited, and this often gave increase to the retching, which before was much less violent. On such occasions too the pain of head and stomach exceeded any thing that can be described. In these cases, although pain in the

head

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head was certainly only a consequence of the affection of the stomach, I have found it necessary, even for momentary relief, to apply leeches to the temples, and even in some cases to open the jugular vein or temporal artery. After this, or at the same instant, to apply a large blister over or even beyond the whole surface occupied by the stomach. I have found this practice, even previous to the use of any internal medicine, permit us to administer such medicines; and such practice, ultimately effected a perfect cure. In others, however, the stomach has continued so irritable, that unless purgatives were, at every dose, accompanied by a small proportion of extract of hyoscyamus, they were instantly vomited. In addition to all these plans of practice I have, in some cases, found it absolutely necessary to order an anodyne glyster. By patient perseverance in one or more of these methods of cure, according to the severity of the case, they have all yielded, and the patient's health has been ultimately restored.

I have frequently had occasion to take notice of a sort of chronic catarrh, very common, I believe, throughout most of the British Empire. It is usually the sequela of ill-treated or neglected catarrh, when it appears in its acute state. And not uncommonly, without being preceded by acute catarrh, it affects old and debilitated persons, and proves, especially in the morning, exceedingly troublesome to them. This, from either of these causes, is not an easily cured affection, but it may in almost every instance be greatly relieved. In my former reports, as well as in my treatise on Medical Police, there will be found a full account of this disease, and of the means which, in many instances, I have found best calculated for the alleviation of its symptoms.

Fevers still of the typhoid kind, prevail rather extensively. Some of them are much worse than others, and run their course much more rapidly. In various instances they have, independently of every attention, terminated fatally in a few days, while in others, much more numerous than these mentioned, their course seems to be protracted often for several weeks, nor do such cases seem to terminate so fatally as the former. To prevent disease, ought always to be our first object, and to cure it our next. More attention being paid to the first of these than is usually done, would soon render the necessity of attention to the second much less. In no disease can this observation be more justly applied than to the various kinds of febrile diseases, and in none has it been less attended to.

Princes Street.

An

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An Account of Diseases in an Eastern District of London, from March 20 to April 20, 1810.

ACUTE DISEASES.		Hernia	1
Peripneumonia Notha	3	Hæmorrhois	1
Febris Lenta	2	Rheumatismus Chronicus	12
Hæmoptysis	4	INFANTILE DISEASES.	
Catarrhus	6	Aphthæ	3
Rheumatisinus Acutus	3	Ophthalmia	2
CHRONIC DISEASES.		Diarrhœa	5
Tussis	15	Vermes	4
Tussis cum Dyspnœa	13	Scrophula	4
Phthisis Pulmonalis	2	PUERPERAL DISEASES.	
Pleurodyne	3	Menorrhagia Lochialis	3
Hæmoptysis	5	Dolores Post Partum	4
Hysteria	4	Dysuria	6
Cephalæa	7	Hæmorrhois	3
Paralysis	3	Mastodynia	4
Obstipatio	5		

The long continuance of the cold weather, with the prevalence of East and North-East winds, has protracted the duration of those complaints which occur principally in the winter season.

We have therefore upon our list a large number of the same diseases as those which we have for some time announced. The connection of hæmoptysis with other affections of the lungs, and which we hinted at in a former report, still continues. In some of those cases, in which it before occurred, it has returned with increased violence; and in addition to these, fresh instances have appeared. This symptom appeared in an elderly subject during an attack of peripneumonia notha, and has returned at intervals for a considerable time since the termination of the original disease.

Rheumatic affections have lately appeared in a variety of forms. These might indeed be expected as the consequence of the late variable weather. The bright appearance of some mornings would naturally induce even valetudinarians to quit their home, and to enjoy the freshness of the air, and the beauty of the scene, inattentive to the inconvenience they might feel from the cool temperature of the atmosphere around them.

Meteoro-

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Meteorological Diary, kept at Clapton, Hackney, from Feb. 26, to March 27, 1810, by THOMAS FOSTER, Esq.

Day of M.		Thermom Max.	Thermom Min.	Barometer. Max.	Barometer. Min.	Wind.	Weather.
Feb. ☾	26	48°	45°	29 90	29 77	W.	Sun & clouds. Cloudy night
	27	54	37	30 07	29 72	S. W.—W	Misty & sm. rain, *a.m.* Fine *p.m.*
	28	54	47	30 07	29 90	W.	Sun and clouds
March	1	55	48	29 83	29 72	W. S. W.	Misty *a.m.* Sun & clouds *p.m.*
	2	54	45	29 73	29 65	S. W.	Overcast & misty. Rainy nig.
	3	53	33	29 70	29 57	W.	Foggy—rain—clear
	4	49	40	29 55	29 30	S.	Fog—sun & clouds—rain
1 ● 23′	5	46	32	29 30	28 95	N.	Cloudy—sun & clouds
	6	39	35	29	28 94	N. W. S. E.	Snow, *a.m.* Clouds—clear
	7	45	38	28 59	28 85	S. E.	Rain, *a.m.* Clouds, *p.m.*
	8	51	45	29 17	29 07	S.	Sun & showers. Clear night
	9	57	50	29 33	29 17	S W.	Sun & showers. Windy night
	10	58	46	29 89	29 15	W.	Sun & clouds. Clear, *p.m.*
	11	57	50	29 95	29 70	S. W.	Clouds. Rainy night
14 ☽ 47′	12	57	37	30 04	29 68	S. W.	Clouds & rain, *a.m.* Fair, *p.m.*
	13	43	37	30 02	30 02	N. E.	Cloudy
	14	41	31½	30 03	29 89	N. E.	Fair day
	15	36	32	29 8[illegible]	29 58	S. E.	Cloudy
	16	39	32½	29 67	29 58	N. E.—E.	Fair morning. Cloudy night
	17	41	27	29 95	29 70	N. E.	Fair
	18	40	24	30 02	29 93	N.E.—S.E.	Fair
	19	48	31	30 1[illegible]	30 07	W.—N.	Fair
14 ○ 31′	20	52	31	29 98	29 78	N. W.	Fair
	21	50	35	29 97	29 74	W. N. W.	Fair
	22	42	24	29 98	29 97	N.	Fair
	23	49	25	29 98	29 80	S.—N.	Fair
	24	46	35	29 83	29 80	E.	Fair, and strong wind
	25	40	31	29 96	29 84	E.	Fine windy day
	26	40	34	29 95	29 80	E. S. E.	Clear windy day

THERMOMETER.		BAROMETER.	
Highest, March 10	58°	Highest, Feb. 28	30.07
Lowest, March 22	24°	Lowest, March 7	28.85
Mean of Observations for this period -	42°	Mean of Observations for this period -	29.69

OBSERVATIONS.

Feb. 26. *Cirro-Cumuli* observed in the morning.
28. *Cirro-Stratus* observed in the west.

Mar. 3. Remarkably fine golden coloured sun-set.
5. Four different modifications of clouds seen at once, namely *Cirrus, Cirro-Cumulus, Cirro-Stratus,* and *Cumulus;* succeeded by rain during the night.
10. The Bat, *Vespertilio Murina,* first seen this year.
14. A lunar halo, about 40 deg. in diameter, seen from 8 till 12 o'clock.
24. The modification of *Cirrus* observable; these clouds, called by the country people *Mare's Tails,* usually precede high wind.
25. High wind all day, *Cirrus* still observable.

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INTELLIGENCE.

THE late Army Medical Board, as was generally expected, has been dissolved, and a new one appointed, consisting of Mr. Weir, Drs. Kerr, and Theodore Gordon. This arrangement seems to be no ways pleasing to Sir Lucas Pepys, from whom it has called forth the following letter, which we present to our readers, as a specimen of the *Zeal and Ardour* with which Sir Lucas contends for the *exclusive* appointment of the medical graduates of Oxford and Cambridge to the Army, whom, with no great degree of liberality, he designates as the *only regular physicians*, although he acknowledges those Universities are not medical schools. The Secretary at War would not say whether he thought a *previous* academical education is necessary or adviseable, before the commencement of medical studies. It cannot be necessary to the welfare of the army, if medical knowledge cannot be attained by it.

On the late establishment, all the physicians to the army were obliged to be examined by the College, of which Sir Lucas is president; no one, therefore could be approved, who was not *qualified* to undertake the cure of diseases; and of what consequence could it be to the sick soldier, whether the physician who cured him, was or was not a Fellow of the College? In point of general literature, which is confessedly so ornamental to a physician, we think there are few graduates of Edinburgh who could not, at least, *equal* Sir Lucas's Letter in elegance of diction and perspicuity of style, although he had never resided in an English University, an advantage Sir Lucas so exultingly boasts of.

Copy of a Letter from the Physician General to the Secretary at War.

"MY LORD,

"Cambridge, Oxford, and Dublin Universities will have to lament your Lordship's acquiescence in the lessening of the credit and character of one of the learned professions. The regular physicians from those Universities were gradually getting into the charge of the army! This I have been bringing about for the last 16 years; and when I first came into the army, there was only one regularly educated physician in it. Now there are five Fellows of the College of Physicians, and only two out of the whole number who have not been approved by the College. The Board about to be established under your Lordship's sanction, propose to have the care of the army committed entirely to regimental surgeons. Whether your Lordship was of opinion, that previous academical education is necessary, or adviseable, before the study of medicine in the medical schools, either here or at Edinburgh, I wished to know when I had the honour of waiting upon your Lordship lately; but as I found you declined to enter on the subject, I thought it my duty, as President of the College of Physicians, and well known by the Universities as a zealous advocate for academical education, to trouble your Lordship with this, that it might hereafter be known that I had expressed my opinion in writing on this important subject.

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ject. A Board of General Officers determining on the medical arrangements of the army, is not* more incompetent than a College of Physicians to decide on the attack of a fortress. As the Commander in Chief disavows the intended change, as originating with him, your Lordship will see the propriety of my addressing you, before it is too late, to request that the abolition of regularly educated physicians from the army may be well considered by your Lordship. For this purpose, I hope my paper delivered to Mr. Percival, on the subject of the fifth Report, two years ago, has been read by your Lordship, and also the Appendix, No. 8, B 4 and 5, of Mr. Keates's printed observations, where your Lordship will see the consequence when surgeons, called physicians, but really not so, act as physicians. I can have no other inducement in troubling your Lordship with this, but my attachment to the Universities, and a sincere wish for the welfare of the army.

"L. PEPYS.

"Upper Brook Street, Jan. 28, 1810."

Mr. LUKE HOWARD, of Plaistow, has detected a criminal imposition, the knowledge of which cannot be too widely circulated, or its effects too carefully guarded against. A very large quantity of glass of lead, has, by some means, found its way into the London market, as glass of antimony. This imposition is sure to be discovered in the operation to which the latter is chiefly applied, the making of emetic tartar; but it is highly necessary for the consumers of smaller quantities, as in the *vitrum ceratum* and *vitrum antimonii*, to be acquainted with the following distinctive characters of the two, that those who have bought the article within the last twelve or eighteen months, may assure themselves of its being genuine. The public health, and even the lives of many patients, may be considered at stake on this occasion. Glass of antimony has a rich brown, or reddish colour, with the usual transparency of coloured glasses. The glass of lead is of a deeper and duller colour against the light, is much less transparent, and even in some samples quite opaque. The specific gravity of the true, never exceeds 4·95, that of the spurious is 6·95: or in round numbers their comparative weights are as 5 to 7. Let twenty grains be rubbed fine in a glass mortar, adding half an ounce of good muriatic acid. The true dissolves with an hepatic smell; the solution is turbid, but has no sediment. The spurious turns the acid yellow, giving out an oxymuriatic odor, and leaves much sediment. Let a little of each solution be separately dropped into water. The true deposits oxyde of antimony, in a copious white coagulum; or, if the water has been previously tinged with sulphuret of ammonia, in a fine orange precipitate. The spurious gives no precipitate in water, and in the other liquid, one of dark brown, or olive colour. A solution of the spurious in vinegar has a sweet taste, together with the other properties of acetate of lead. A very small mixture of

* We presume Sir Lucas means less incompetent.

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of it may be detected, by its debasing, more or less, the bright orange colour of the precipitate thrown down by sulphuret of ammonia, from the solution in any acid. The samples of the spurious hitherto detected, are of a much thicker and clumsier cast than the genuine; but the appearance is not to be trusted, and no specimen should be allowed to pass without a trial, either of the specific gravity, or chemical properties.

On an examination after death of the man who was wounded on Tower Hill, by the soldiers, on the 9th ult. and carried into the London Hospital, it was discovered that the ball had entered the fore part of the neck, had detached one of the alæ of the thyroid cartilage, passed clear of the carotid artery, and wounded the vertebral; it had afterwards fractured the transverse process of one of the cervical vertebræ, and finally lodged under the integuments at the back part of the neck The poor man survived only three days.

Dr. ADAMS's Lectures on Pathology and the Practice of Medicine, will commence on the 27th inst. at ten o'clock in the morning. —During that part of the Course which embraces Morbid Poisons, all the varieties of Vaccination and Small-pox, casual and inoculated, will be exhibited at the Hospitals.

Dr. CLUTTERBUCK will begin his Summer Course of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, on Monday June the 4th, at a quarter before ten in the morning, at his house, No. 1, Crescent, New Bridge Street, where further particulars may be had.

Dr. JAMES ROBERTON, Member of the College of Physicians, and one of the Physicians to the British Lying-in Hospital, will begin his Summer Course of Lectures on the Principles and Practice of Midwifery, and the Diseases of Women and Children, about the 15th of May.—The Lectures will be delivered every morning, at Mr. Bell's Museum, No. 10, Leicester Street, Leicester Square.

We understand that Mr. RAMSDEN is about to publish some important Cases of Cure of the derangements of the Testicle, demonstrative of their being sympathetic with the Urethra; and to shew that most of the Diseases of that Gland, hitherto deemed incurable, are perfectly within remedy. Also some Cases of Hydrocele, in which the radical Cure has been effected without recourse to any of the operations at present practised for that purpose.

To CORRESPONDENTS.

We would very readily have afforded a place to any recital of facts an *impartial Practitioner* might have sent us, on the subject of Vaccination, whichever side of the question they might have tended to support; but we cannot spare room for long declamatory arguments. If this Practitioner really doubts the occasional occurrence of Small-pox a second time, and gives such easy credence to erroneous statements against vaccination, as he appears by his Letter to do, we fear his bias to one side of the question is too great to entitle him to the character of *Impartiality*.

ERRATA.

In the paging of the first Sheet of this Number, for 373—376, read 353—368.

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THE

Medical and Physical Journal.

VOL. XXIII.] JUNE, 1810. [NO. 136.

Printed for R. PHILLIPS, *by* W. Tooke, *Red Lion Court, Fleet Street, London.*

History of an Acute Eruptive Disease of the Integuments of the Penis. By Mr. Royston.

(With a Plate.)

An eruptive disease, which has not hitherto been correctly described, and, perhaps, very little, if at all, noticed by medical writers, except in a vague manner, as connected with *syphilis*, has frequently, within a few years, come under my notice. Though slight in itself, this disease accidentally becomes serious, occasions much perplexity; and sometimes has endangered, if not destroyed, life: and that, not from any virulent property in itself, but by being mistaken for another affection. Under this state of our acquaintance with this complaint, I apprehend I may do some service to the profession, and to society, by giving such a description, accompanied with a drawing of its stages, as will at least, tend to make it better known; and hereafter, perhaps, prevent the evils that have arisen from its mal-treatment.

The cutaneous integument of the *penis* is subject to an acute eruptive disease of no infrequent occurrence. It is always troublesome, but when left to its natural course, goes through its stages in eight days; and never, as far as my observations go, produces any permanent local mischief, or general affection of the system.

The scite of this complaint is in the external tegument, and somewhat on the side of the penis. Its first appearance, as marked, (1.) on the drawing, is a small dark red, or copper-coloured spot, with defined edges; and not elevated. This spot is evidently in the cutis, shewing its colour through the cuticle. At this period neither pain nor pruritus is felt.

2d day.—The second stage is marked by the copper-coloured spot having lost its defined edges, and become dif-

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fused with a brighter red along the cutis. It is now accompanied with a slight pruritus, but no elevation of the cuticle is yet to be detected.

3d day.—On the third day, the inflammation is further spread, the pruritus is increased; and in the centre of the inflamed disc several, usually from six to ten, lucid vesicles may be observed. These vesicles contain a transparent lymph, through which the colour of the inflamed cutis is discerned.

4th day.—All the symptoms are increased on the fourth day; the pruritus becomes troublesome, and some tumefaction of the integument of the penis is manifest. The vesicles are enlarged, more elevated, irregular in shape, and have a tendency to become confluent. But they yet retain their lucid transparency.

5th day.—On the fifth day, the inflammation, pruritus, and tumefaction, in a degree, subside. The vesicles are now becoming opake, by the contained fluid approaching to a purulent form. At this period, the cuticle is apt to be ruptured by some accident; and on the contents of the vesicles being removed, the cutis is found, under each of them, in a state of ulceration.

6th day.—The inflammation still subsiding, the vesicles become completely opake, and contain a distinctly formed pus. The pruritus, which had begun to decrease on the fifth day, has now vanished, but is succeeded by a tenderness; and touching the part gives pain.

7th day.—An approach to the healthy state is now manifested by the removal of all irritation, and by the vesicles assuming a brownish hue.

8th day.—On this day the only remaining mark of disease is a hard, elevated, brown substance, (the purulent discharge indurated) adhering firmly to the cutis, where each vesicle had been. The removal of this substance brings into view a decided vestige of previous ulceration.

The remote or proximate cause of this well-marked disease, I am not prepared to explain. It has been suggested to me by a gentleman, extremely conversant in the causes of febrile affections, who is a close and attentive observer, and has made considerable researches into cutaneous diseases, that the local complaint here described is always preceded by some, though slight, *pyrexia*. Rigours, lassitude, and the usual symptoms of the attack of exanthemata, in a lower degree, or proportionate to the extent of the local affection, he is of opinion, always precede this eruption. This, however, I have never yet perceived. On the

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the contrary, my observations have led me to remark, that it has frequently occurred in a state of perfect general health: that during its progress, no other derangement of the system has arisen, than what might be fairly attributed to mental perturbation.

As the first appearance of this complaint, marked (1) in the drawing, has frequently happened within twenty-four hours after the sexual intercourse, it was no forced presumption, that some circumstance of that act produced it: and this opinion is strongly supported by the fact of those who live in a state of abstinence, in that particular, being free from it. But whether, if it is thus produced, it arises directly from some acrimony in the female secretions; indirectly from mechanical action, applied to parts predisposed to receive such an impression; or is an effect produced by the conjunct operation of both these causes, I am not in possession of facts to determine. I am, however, persuaded, that no abrasion of the cuticle precedes the attack of this disease; and it can hardly be believed, that if it arose from the application of any acrimony *ab extra*, that in no instance this acrimony would act upon the more susceptible parts about the glans and inner portion of the prepuce; but always upon that part where the cuticle presents a firmer defence. These observations call up the question of its infectious or non-infectious nature. If it is excited by the application of some acrimonious fluid, communicated by the female to the male, the possibility of reciprocal excitement will not be denied. This I had long doubted; but a recent case has convinced me, that such a communication of the disease does really exist. On the fifth day of the complaint, when it was evidently subsiding, the application of the purulent discharge to the labia and nymphæ excited considerable inflammation, intolerable pruritus and tumefaction, but without any evident vesication.

The effect of this stimulus, whatever it is, appeared in twenty four hours after its application; continued to increase to the end of the fourth day, and then gradually declined.

The affinity between this and other acute diseases of the skin is characterized by two circumstances. In the regularity of its progress, it strikingly resembles the *exanthemata*; and its stages, when undisturbed by art, are as decidedly marked as those of distinct *variola*. Its external appearance has the character of the genus erysipelas, especially resembling in the early part, (third and fourth

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day) of its vesicular stage, the *zona ignea*: with this difference, however, that the cuticle does not spontaneously burst, (vide fifth day) and permit the contained fluid to escape; for, if not accidently ruptured, it remains whole to the last period, when the appearance described in the 8th day takes place.

Opinions found in authors are false, though harmless, when they pronounce this disease to be an excoriation. When it has been taken for a venereal affection, and this has not unfrequently happened, the consequences have sometimes been very serious. The evening of the 4th, or the morning of the 5th day, is the usual time when professional assistance is required. At this period, the ulcerated state of the cutis (for the cuticle has commonly been removed by some lotion, or washed away with a view to cleanliness) gives it, to a hasty observer, the appearance of *chancre*. Its recent state, and its presumed locality, seem to justify the immediate application of some escharotic, with the intention suddenly to produce a slough, which will, on its separation, bring away the supposed virus. The inflammation and irritable state of the parts are greatly increased by this process; considerable ulceration ensues; it is thought right speedily to fill the system with mercury: the local disease increases, a febrile state is induced, and kept up partly by mental alarm, and partly by the stimulus of the specific, until a mild morbid action degenerates into a phagedenic sore. Its supposed syphilitic origin countenances a continued use of mercury, until the prepuce and great part of the integuments of the penis are sacrificed. After some weeks, or months of trial, it is discovered that, from the patient's peculiar and undefined idiosyncracy, mercury will not exert its specific properties on the disease. In this deplorable state, *conium* commonly, sometimes *hyoscyamus*, and more rarely, the *atropa belladonna*, are resorted to. This does not unfrequently happen. I have had the chance to see it more than once, and most surgeons who have practiced a few years in the metropolis, have either themselves seen, or learned *a part of its history* from their friends.

When this disease has proceeded to this point, I cannot hesitate to say, that the only remaining chance to save the patient, is that of having recourse to mild and soothing topical applications; by removing him, if in town, to a country air; by the employment of an un-irritating restorative diet; and the use of pleasant tonics. Mercury, and the whole tribe of narcotic vegetables, with the exception

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ception of opium, if the patient has been accustomed to its use, should be discarded at once.

If the course of this disease has been disturbed by the interference of art, it becomes extremely difficult to determine its nature; and a painful state of perplexity ensues to the surgeon, who sees it under these circumstances. The wavering between its syphilitic origin, and its having some other, (but hitherto) obscure source, is usually determined however, in favour of the former; and precisely that method which creates the danger is pursued, under the opinion of its being most safe. Four years ago, a case of this kind came under my care, at a period when, I confess, I had no clear idea of its history. On the 3d day of the patient's noticing it, but on the 5th from its actual commencement, it was shewn to me. It had then arrived at its purulent stage, but from the cuticle having been removed, there appeared on the integuments, in the usual place of the disease, three small ulcers, accompanied with slight irritation; having in them a character that gave me the opinion that they were slowly enlarging, and possessed some quality different from simple ulceration. The history given by the patient was, that forty-eight hours after having exposed himself to the hazard of contracting syphilis, itching and inflammation had arisen in this part, accompanied with some shining red pimples, and ending in the ulceration I saw. This account, supported by an appearance in the ulcers, though not in itself very decided, led to a conclusion that the safest determination would be to admit the syphilitic origin. It was, perhaps, fortunate for this patient that he had recently suffered by a mercurial course, pushed too far; and that his habit still continued so sensible to the action of that mineral, that the hazard of suddenly filling his system with it, was greater than would arise from the chance of absorption from the ulcers. The mildest escharotics were applied, the usual precautions were taken to avoid, as much as possible, the occasion of irritation, and in four days the ulceration was considerably enlarged. Three weeks elapsed under the application of various preparations of mercury, in ointments and in lotions; and the disease had much increased. The three small ulcers had run into one, making a sore the third of an inch in diameter; foul in its appearance, and slightly inflamed. At this time, a surgeon of great skill and known candour, saw it. His opinion was against its being syphilitic, and advised to have the ulcer dressed twice a day with a solution of nitrate of silver. Thus, occasionally

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varying the applications, three weeks more passed away, and the ulcer had evidently increased in size, and its appearance was not improved. During all this time the patient had not taken mercury in any form, for the reason before assigned. In this state of perplexity, it was determined to give one week's trial to the simplest application that could be devised. All the former medicaments were left off, the parts were washed perfectly clean from their remains, and the sore was covered with gold-beater's skin. Twice a day a tepid bath of water was used, after which, fresh gold-beater's skin was applied, and in one week the ulcer was completely healed. This case is a forcible example of a mild disease, which regularly goes through all its stages in a few days, when left to itself, becoming very troublesome by the use of improper topical applications only. Had the patient's constitution been in a state to have admitted of a free use of mercury, it would have been employed in its fullest extent, the result of which would have been the increase of the disease to a very dangerous degree.

As my intention has gone no further than to give, as distinctly as my observations on it permitted, a history of this disease from nature, and connected with the consequences of mistaking it; I have rather avoided than sought the descriptions of it found in books, if any such exist: for I doubt, very much, if the hydatids and crystaline bladders, described in the old authors on lues, as symptoms of that disease, do apply to this. It is but an act of justice to state, however, that the author of the treatise on "Morbid Poisons" has, in that work, observed, "that the crystalines of these authors are only to be considered as a species of epidemic erysipelas, prevalent at a particular season, and which has occasionally occurred since, especially in fleets and armies." This is a step towards the truth. But when epidemic erysipelas attacks this part of the frame, which, I believe, seldom happens, its character will be so strongly marked, and the general derangement of the system so palpable, as scarcely to admit of being mistaken for any other disease, especially syphilis. Whereas the disease I have described, alway arises under suspicious circumstances, occurs at all seasons, and seems independent on their influence; happens generally in the society of civil life, is so perfectly local, never, as far as I know, spreading from the inflamed spot where it arises; and in every instance I have seen, so obviously unconnected with any febrile state of the habit, that the younger branches of the profession, to whom application

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on these occasions is commonly first made, will always be liable to mistake it for chancre. And when altered in its appearance, by attempts made to cure it, even the experienced surgeon will, I know, have doubts; and feel that the nature of the case is of difficult determination.

In the treatment of a disease so mild in its symptoms as this, not much is required of the practitioner. The great object is, to have so clear a knowledge of it as never to mistake it for syphilis, to avoid the application of all irritating substances, and to quiet the patient's mind. The topical application which I have found most convenient, has been gold-beater's skin. As soon as the eruption appears, a slip of this substance may be spread over it from time to time. And this, with occasional ablution with tepid water, will comprehend the whole of the curative process. I can suppose, however, that anomalous cases may arise, but which I have not yet seen, where the more active methods to restrain inflammation, or remove its consequences, may be required.

If this disease has hitherto, as I believe, been unnoticed, except in an indecisive manner, more calculated to mislead than instruct, I may have a reasonable hope that this account of it may be of service; and that others will be induced to carry the inquiry further, and render its history so clear, that it will no longer have the chance of being mistaken for syphilis, and rendered formidable by improper treatment.

P. S. It has given me considerable satisfaction to observe, that an inquiry, originally suggested by me, in "Hints for a Medical Topography of Great Britain," (Medical and Physical Journal, January and February 1809) has produced some curious facts in the history of the properties of ipecacuanha. Dr. Hamilton, (Medical and Physical Journal, April 1810, p. 318), says, the case related by Mr. Spencer, of a peculiar property in this plant, appears to be the *first* on the subject. I beg to refer him to the Medical and Physical Journal, (January 1809, p. 20) where he will find the *first* reference to this property of ipecacuanha, and which recalled to Mr. Spencer, the recollection of his apprentice's case. (Medical and Physical Journal, June 1809, p. 485.) The nature of my communication on Medical Topography did not admit of a minute detail of cases, but I mentioned, as concisely as possible, singular facts which had fallen within my own knowledge, with a view to excite inquiry.

Princes Street, Cavendish Square, May 10, 1810.

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN the last number of your most useful Journal there is a case detailed, and this, we are told, is not the only one, in which all the measures taken to ascertain the presence of *arsenic* failed, and where the most delicate tests were ineffectual. The importance of this subject, not merely to the chemist but to every medical practitioner, is too obvious to induce me to make any apology for the observations I may offer upon your Correspondent's case; but as there appears either some omission in the report itself or inaccuracy in the application of the means he employed, I shall very briefly give my reasons on which these doubts are founded.

Though the usual precautions to collect all the arsenic, such as the securing of both orifices of the stomach by ligatures, preserving the contents and subsequent washings, &c. still, I should think, it would have been prudent to analize, or at least to inspect, what had been rejected by vomiting; for, since this metallic substance is not very soluble, requiring more than eighty times its weight of water for solution, it is reasonable to expect a portion of the arsenic in these evacuations. As I should be sorry to provoke a controversy upon this or any other theme, I shall merely ask a few questions, which force themselves upon my notice on perusing this communication.

1. What is meant by the word *mixture*, in the experiment upon three grains of the white powder and six drachms of water?

2. In the two comparative experiments, with the above solution and with arsenic bought for the purpose, were the sky-blue and the fine green colours in the state of *precipitate* or *mixture*?

3. Was there any sub-carbonate of potash or any other *alkali* employed, previous to the admixture of sulphate of copper in solution?

4. Is not this alkali a most essential addition to any solution of white arsenic in water, in which its presence is to be proved by producing Scheele's green, or arsenite of potash?

5. Is not a *red* heat too strong to make a successful assay by means of the polished copper plates; and is it not generally recommended to envelope the arsenic with charcoal

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so far as to prevent the admission of oxygen from the atmosphere during the experiment?

Though there are many very excellent processes described in elementary treatises, to prove the existence of small quantities of arsenic, yet, unless certain cautions be duly observed in their management, the operator may frequently fail in obtaining the truth and detecting the poison so certainly as to substantiate the evidence before a jury; therefore, it becomes a duty to attend most scrupulously to all the rules prescribed; to be particularly nice in the choice of the vessels, water, tests, and indeed every thing concerned with an analysis, on which may depend the character and even the life of a fellow creature.

In the Philosophical Magazine, for May, 1809, I published a new process for detecting white oxide of arsenic. This I believe was afterwards announced among the valuable lists of intelligence diffused through the medium of your Journals; but as this process cannot be too generally known, I beg here to repeat it, with some observations respecting its efficacy as a test, and the rules necessary to be observed in such an important investigation.

As an example, let us take the three grains of the suspected white powder, named by your Correspondent. Into a very clean Florence-oil flask introduce this powder; add not less than eight ounces of either *rain* or *distilled* water; heat this gradually over a lamp or a clear coal-fire till the solution begins to boil; then, while it boils, frequently shake the flask, which may be readily done by wrapping a piece of leather round its neck, or putting a glove upon the hand. To this hot solution add a single grain or two of the sub-carbonate of potash or soda, agitating the whole to make the mixture uniform. By adding the alkali *after* the solution has boiled, we are enabled to decide whether any part or the whole of the suspected powder has been dissolved; for there are instances in which an alkali increases, and others where it diminishes the solubility of various bodies.

Now, the method I would next pursue, to prove the presence of this fatal substance, is this. Into an ounce phial or a small wine glass, pour out about two table-spoonfuls of this prepared solution; then present to the mere surface of the liquid, either in the glass or phial, a piece of dry *nitrate of silver* or lunar caustic; if there be any white arsenic present there will instantly appear a beautiful *yellow* precipitate, which will proceed from the point of contact of

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of the nitrate with the fluid, and preponderate towards the bottom of the vessel as a flocculent and copious precipitate, which, I am confident, cannot be confounded with any other substance, so as to lead to a doubtful opinion.

The white oxide of arsenic is called, by most authors, *arsenious acid;* but as it shews no acid properties unless it be combined with hydrogen, that is, dissolved in water, a necessary ingredient in all acids, I am rather inclined to prefer its being classed among metallic oxides.

This excellent test, the nitrate of silver, is also extremely sensible in its operation upon *arseniate* of potash, and it serves most decidedly to distinguish this salt from the above solution or *arsenite* of potash; for the colour of this precipitate is much darker and more inclined to red or brick colour, especially after it has been suffered to collect and remain exposed to light.

I have made a number of experiments with a view to compare this test with others, for ascertaining the presence of oxide or arsenic, but particularly that with the sulphate of copper, and I have invariably found this method greatly superior, inasmuch as it produced a more copious precipitate when equal quantities were submitted to the experiment. In both cases I should recommend the dry or crystalized sulphate of copper and nitrate of silver, rather than the solution of either; and that the piece of salt should be held upon the *surface,* in order that the effect may be more perceptible.

In respect to other methods of proving the existence of arsenic, I could offer some remarks and cautions which I believe have escaped general notice; these, however, being of less consequence since a more delicate test has presented itself to me, I shall not include in this communication.

I am, &c.

JOSEPH HUME.

Long Acre, May 14, 1810.

A short

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A short Account of the Annual Report made to the National Institute of France, on the Subjects of Physiology, Medicine, and Surgery.

PHYSIOLOGY.

PHYSIOLOGICAL experiments, of all others, are those which require most leisure and patience, while the rigorous exactitude so important and necessary in the sciences is more difficult of attainment in physiology than in any other branch of experimental philosophy. Humboldt, however, while occupied on a voyage, in which obstacles and dangers were daily increasing, directed his attention to some delicate experiments on several of the phenomena of life. He has communicated the researches which he made in America on the respiration of the crocodile with the sharp beak; he was led to ascertain, "that this animal, notwithstanding the volume of its branchiæ and the structure of its pulmonary celluli, suffers in an air which is not renewed; that its respiration is very slow; in the space of an hour and forty-three minutes, a young crocodile, three decimetres in length, took up only about twenty cubic centiemes of oxygen from the surrounding atmosphere."

Since his return to France, M. Humboldt, in conjunction with M. Provencal, has made some additional inquiries into the respiration of fishes. The experiments of these gentlemen, which are numerous, and remarkable for their accuracy, have led them to very important results.

The experiments of Spallanzani and of our colleague, had demonstrated, that it is not by decomposing water that fishes breathe, as some naturalists thought, but by taking up the oxygen dissolved in this liquid, or by coming to the surface of the water, they collect it immediately from the atmosphere. To these observations all our knowledge on the subject was confined; the nature and quantity of the gases had not been established, which were absorbed by these animals in the act of respiration, and the results of these phenomena. The chief object of the experiments of Humboldt and Provencal is to elucidate these questions. With this view they first consider fishes in their natural state and respiring river waters; they next examine the action of the branchiæ in the ambient water impregnated with oxygen and azote, carbonic acid, or a mixture of hydrogen and oxygen, and they afterwards treat of the changes

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changes produced by fishes in different aeriform fluids in which they are plunged.

Seven tench (ciprinus tinca) were placed under a bell-glass filled with river water, and which contained 4000 cubic centimetrés: after eight hours and a half's respiration the fishes were withdrawn, and the analysis of the air still remaining in the water, shewed that in this space of time the fishes had absorbed 145,4 of oxygen, 57,6 of azote; and that 132 of carbonic acid had been produced; hence it results, as observed by our authors, "that by the respiration of the fishes submitted to this experiment, the volume of the oxygen absorbed exceeded only by two-thirds the volume of the azote which had disappeared, and that no more than one-eighth of the former had been converted into carbonic acid."

Fishes suffer greatly in water entirely freed of air, and after twenty minutes they fall motionless to the bottom of the vessels. In pure oxygen, these animals seem to respire with avidity, and open their branchiæ more widely. In azote and hydrogen, they keep their branchiæ close; seem to dread the contact of these gases, and die very soon after having been plunged into the water which contains them. Carbonic acid kills them in a few minutes; but fishes do not absorb oxygen and azote by their branchiæ alone: the whole surface of their bodies has the faculty of acting on these gases, and of assimilating them. After having withdrawn the fishes from the water saturated with the deleterious gases, and analysed it, some portion of carbonic acid was found in the liquid; but as there had been no oxygen absorbed, it is probable, as observed by Messrs. Humboldt and Provencal, that it was not the result of respiration, but that it had been exhaled from the surface of the body. Such are the principal points in this work, which besides contains other useful observations, and interesting views on the physiology of fishes, but which the limits of this report do not permit us to enter upon.

In speaking of respiration, however, we cannot pass over in silence a memoir read to the Class by M. Provencal, on the respiration of mammiferæ, in which the nerves of the eighth pair had been cut. We have already spoken of the experiments which had been made to ascertain the influence of these nerves on respiration, by which this influence was demonstrated: some doubts however remained as to the way in which it is exercised. M. Provencal was anxious to ascertain if the animal in which the eighth pair of

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of nerves had been cut, absorbed as much oxygen, and produced the same quantity of carbonic acid before as after the operation. Numerous experiments made with care, proved that the animal after the section of the nerves, absorbed less oxygen, and produced less carbonic acid than before this section; but these changes are produced by gradation only. At first the respiration does not appear weakened; subsequently, it is effected with less strength. Finally, these phenomena cease entirely, but most probably in consequence of the cessation of the mechanical functions of the chest. It was interesting to ascertain if the animal heat diminished in the same proportion with respiration. M. Provencal, therefore, made all the experiments necessary for resolving this question; and it would seem that in fact, the temperature diminishes soon after the nerves have been cut, and the respiration has slackened.

The functions of the organs whose action has been just mentioned are well known; but there exists in animals a certain number of other organs, whose functions are not evident, and as to the use of which physiologists are still divided in opinion. Among this number is the swimming bladder of fishes. This singular organ, which is only to be found in this class of animals, is not met with in all the species, and it exhibits so many varieties in its organization, that at the first glance, one would incline to think, that it did not perform the same functions with some that it did with others. Generally, this bladder is filled with air, and composed of two membranes. Sometimes it communicates with the stomach by a canal: at other times it has no apparent communication; and in this case it contains a peculiar organ of a red colour, and of a lamellated structure, according to the observations of M. Duverna. There are some bladders, however, which are furnished with these red bodies, and which have a canal of communication, and some, but few in number, have peculiar muscles. The opinions of authors vary as to the use of this organ, and of its different parts: in general, it has been thought that it was employed to change the specific gravity of fishes; and that for this purpose, the animal, by means of its muscles, compressed this organ, and thus varied its dimensions, according as it was desirous to remain in equilibrium, to ascend or descend in the medium in which it exists. As to the way in which the air gets admission, it has been thought that it was by means of the canal in such bladders as are furnished with it, and

by

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by means of the glands by secretion in those which have no communication externally. Besides, we know from the experiments of M. Biot, that this air is a mixture of oxygen and azote, and that its nature varies according to the depth at which the fish lives; so that the species which are procured from the bottom of the sea, contain a greater proportion of oxygen, while those which are found near the surface yield more azote. M. Delaroche having collected a great number of fishes in the Mediterranean, has described their swimming bladders, and made us acquainted with some which were unknown before; he has confirmed the experiments of M. Biot; and as to the uses of this organ, he adopts nearly the same results with preceding naturalists.

This air bladder has also been the subject of some researches by Messrs. Humboldt and Provencal. They wished to ascertain what are the relations between this organ and respiration. The chief results of their experiments are as follow: the air contained in the swimming bladder does not depend on the air brought into contact with the branchiæ; the absence of this organ does not affect the process of respiration, but it seems to prevent the production of the carbonic acid gas. Lastly, they have seen tench, from which the swimming bladder had been taken, swim about, rise and sink in water, with as much facility as those which are furnished with them.

These labours have given rise to a very detailed report of M. Cuvier, in which he brings to view all the inquiries which have been undertaken as to the swimming bladder of fishes, and in which he again takes notice of the various questions which have arisen on the subject. After a profound discussion, he arrives at some general results which we have mentioned above, and details every thing which still remains doubtful on the subject.

There are some other experiments from which physiologists may derive great advantage. These relate to the action exercised by substances of various kinds on the bodies of animals, when introduced into the circulation. Medicine, indeed, affords many experiments of this description; but they are still too few in comparison with those which might have been tried.

Messrs. Majendie and Delisle have communicated to the Class their experiments made on animals by means of the matter with which the natives of the isles of Java and of Borneo poison their arrows. This substance is extracted from the *upas tiente*, a plant resembling the *apocineæ*. The experiments

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experiments of these young physicians have been numerous, and most of them were made on dogs. Whether this poison was introduced into the body of the animal by the blood vessels or by the absorbents; whether it has been poured into wounds, or into the intestines, the same phenomena took place: the animals died in general convulsions. This substance seems to act particularly on the spinal marrow, and to penetrate into the body by means of the circulation; it seems to act but feebly on the brain, and it thus furnishes a proof, that there exists between these two essential parts of the nervous system an independence which anatomy has not demonstrated.

M. Vauquelin has also made some experiments of this kind at the end of his chemical analysis of the juice of the belladonna; he speaks of the effects of this substance on animals. Those which he forced to swallow it, fell down as if intoxicated, in a delirium, precisely similar to that produced by opium.

M. Sage has reported, on the same subject, some more experiments which chance threw in his way, or which he collected from authors, and which confirm the action of this juice on the nervous system, and particularly on the brain.

A young practitioner in medicine, whose name has been mentioned in former annual reports, M. Nysten, has attempted to ascertain the effects of different gases injected into the blood vessels of animals; he used the greater part of the gases with which we are acquainted; atmospheric air, oxygen gas, the oxidulated azotic, carbonic acid, carbonic, phosphorated and hydrogenated gases, &c. are in no respect deleterious. The oxy-muriatic, nitrous acid, and ammoniacal gases, seem to act by very violently irritating the right auricle and the pulmonary ventricle. The sulphurated hydrogen, oxyde of azote, and azotic gases, injure the contractile power of these parts; others also change the nature of the blood so completely, that respiration can no longer convert it from veinous blood into arterial, &c.

MEDICINE AND SURGERY.

M. Desessartz has communicated the history of an epidemic disease, which raged in three adjoining villages at the same time. Although generally depending on the inclemency of the weather, and on the bad quality of the fruits of the season, this epidemic presented a sensible variety in the nature and intensity of the symptoms, which necessarily

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necessarily gave rise to essential modifications in the treatment. He shews that the differences depended on the exposure peculiar to each of these villages, on the quality of their respective soils, productions, and way of life of the inhabitants.

M. Sage has presented to the Class, some reflections on the best means of remedying the bite of the viper, and a description of the effects of the poison of the tarantula, with the means employed in Spain for remedying it. All these remedies consist in the internal and external use of the volatile alkali.

M. Tenon continues to enrich the art of surgery. He has communicated to the Class three Memoirs, one on the exfoliation of the bones, another on the operation of trepaning the cranium, and a third on some kinds of hernia. In the first, he inquires if the bones of the great extremities of the body are exfoliated after amputation; and it results from his numerous experiments on dogs, hares, and sheep, that after all amputations, the denuded extremity of the long bones is exfoliated, as also happens to the flat bones when laid bare, before being covered with a cicatrix. In the second, he gives the description of all the phænomena which took place in the cure of a wound in the head, in consequence of which, the trepan was resorted to; and which was cured after 151 days treatment.

In the third, he describes an ingenious method resorted to by himself, for the reduction of two crural hernia, and gives some observations on the operation for an inguinal hernia. In order to succeed in the reduction of these crural hernia, "I directed an assistant to get upon the bed of the patient, and place himself between the knees of the latter, making him raise them as high as possible; the pillows being withdrawn, I employed another person to hold the leg and foot on the ruptured side, and to turn strongly inwards the great toe as well as the knee and thigh." When matters were thus arranged, M. Tenon succeeded by degrees in returning the intestines into the abdomen, so that the patient had no occasion for any operation.

M. Pelletan has communicated to us some interesting observations on aneurisms, and on the chirurgical operations which these diseases require.

M. Larrey has submitted to the Class, a Memoir, on which a Report has been made, and which suggests that in cases of gun-shot wounds, followed by gangrene, that we should not expect to put a stop to the gangrene by performing amputation.

To

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN the number of your Journal for this month, a curious case of twins is communicated, by an unknown Correspondent, as introductory to a new doctrine of superfœtation. It would appear, however, according to the Correspondent's own apprehensions, that circumstances are not at present the most favourable for the reception of a new doctrine; inasmuch as the ancient, and hitherto *only* doctrine of superfœtation, is so far from having been given up, that he says, "the majority of medical practitioners have, by no means, made up their minds on the subject." The advocates of the ancient, and I repeat it, hitherto *only* doctrine of superfœtation, cannot but charge the Correspondent with some inconsistency, in affirming, after having said, that *above half* of the medical practitioners have not made up their minds upon it, that "*no person* who has attentively considered the anatomy of the gravid uterus, can for a moment suppose it" [the ancient doctrine] to possess any truth. This affirmation is the more extraordinary, because it is certain, that *one person* at least, Mr. Fawell, of Leeds, has declared, not long back, in your Journal, his faith in the old doctrine, and has recorded what he calls, "a Case of Superfœtation" in support of it. Mr. Fawell's case, which is similar in all its circumstances to that published in your last number, was ingeniously animadverted on by one, who, although he made some *Concessions*, could not admit the doctrine of superfœtation. Now it is very remarkable, that these *concessions* strictly coincide with that *doctrine* announced in your last number, as a novelty which had not "as yet been published by any author on the subject." That the Correspondent, whose paper is signed with an H. may not suppose that I am dealing unfairly with him, I here give reference to the numbers of your Journal, containing the subjects in question. No. 125, p. 47, and No. 128, p. 293. But regarding the correctness of the Correspondent's views of superfœtation, I have to observe, that they must appear to a great part of the medical men who consider the notion of superfœtation as unphilosophical, [and I confess myself one of that sort] to be founded on little more than the inconclusiveness of his reasoning against the doctrine of our ancestors. The ancients

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believed that a parent, when several months gone in pregnancy, might, before the birth of the offspring, conceive again. The amount of his objections is, that when pregnancy is so far advanced, the os uteri is plugged up by a tough gelatinous substance, and the ovaria in consequence inaccessible to the seminal fluid. The want of communication to the ovaria being set down as the only obstacle to superfœtation, it irresistibly follows that superfœtation *may* take place whenever this want of communication does not exist. Thus, while the os uteri is not impermeable, while nothing obstructs the passage from the vagina to the Fallopian tubes, as is the case "in the early stages of pregnancy," the already impregnated uterus admits of impregnation again. The sum and substance, then, of the doctrine is, that a pregnant animal remains *susceptible* of further impregnation during *the whole period of pregnancy*; for if no susceptibility exists, the stoppage of the os uteri cannot "*prevent*" impregnation: for to talk of *preventing* what cannot happen is to talk without meaning. As it is a gratuitous assumption, incongruous with the facts of gestation, that the female organs may remain susceptible of further impregnation while impregnated, all reasoning in support of the position must be found fallacious. The fact is, that the stoppage of the os uteri does not "*prevent*" impregnation, it can only prevent the passage of the seminal fluid to the Fallopian tubes; and the stoppage alone is not sufficient for that in every instance. If the "gelatinous substance" which plugs up the os uteri was in all cases "as unyielding as the hard substance of the uterus itself," a danger attends unassisted flooding cases, which has I believe never been expected,—*rupture of the uterus*.

Although we are ignorant why some animals bear only one at a time, and others many, this much I think is certain, that the doctrine of superfœtation is incompatible with *the fact*. When the process of fecundation is completed, [which, according to the experiments of Dr. Haighton takes up many hours] the sexual organs have undergone a change, which *prevents* further impregnation during the period of gestation. If the sexual organs were otherwise constituted, *all* animals would be multifarious, and multifarious too, beyond all determinate bounds.

The alleged examples of superfœtation occur chiefly in the lower order of animals, from their having admitted varieties of their species before the process of fecundation has terminated.

With regard to the black woman in America, spoken of by

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by your Correspondent, who had *a black child and a mulatto* at one lying-in, I do not think it was worth while to make a theory on her account, especially such an one as is better calculated to increase the difficulty of the fact than to solve it. The first step most assuredly was, as no two accounts agree, *to ascertain the fact.* In number 128 of your Journal, this woman is said to have had "a *white* and a black child at the same birth;" in the last Number the account is, that "one was a black child, and the other a *mulatto*;" and from the uncertainty in which the fact is involved, I will not presume to extricate it. Professor Lobstein, in his "Essai sur la nutrition du fœtus," has made out the strongest case of imputed superfœtation. It is the case of a woman with two uteri and two vaginæ,* who having been delivered of one child, was, in about a month afterwards delivered of another. The extraordinary part of the case is the *interval* between the birth of the children. The woman having two uteri affords no explanation; because in those animals which have double uteri, the actions of both uteri to expel their contents *are synchronous.*

With respect to the Correspondent's case of twins, in which the latter fœtus was still-born, and much less than the other, I need not say that I perfectly agree with him, that it was not a case of superfœtation. He is of opinion, that the still-born fœtus was killed by an accident, which the mother had when about five months gone with child. Of this, I think, much doubt exists. Be this as it may, the case is very interesting, and well deserving the consideration of your numerous readers.

I am, &c.

A. B.

April 11, 1810.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

ABSENCE from England prevented my seeing, till a few days ago, your Journal for last July, containing the valuable paper of Dr. Valentin, on that greatest of human miseries, Hydrophobia, in which it is said that Professor

* *Not* ascertained by dissection.

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Rossi has published in the Memoirs of the Academy of Turin, contrary to the axiom of "*Nemo dat quod non habet,*" the cases of three persons who died of hydrophobia, after being bit by cats which were not mad, but greatly irritated. I myself was a witness a few years ago of a case of this kind, but believing it to be a solitary one, I hesitated in communicating it to the public.

The child of a clergyman had a favourite cat, which was one day taken from him by his playmates, and hunted about by them till it was much irritated; the animal at length took shelter in a stable under the manger, from whence its pursuers could not dislodge it; the boy who owned it, wishing to rescue his favourite, put his hand and arm into its lurking place to lay hold of it, but soon withdrew them on finding his hand severely bitten and scratched. I believe nothing more was done for the child than to dress the wounds till they healed. In a short time after, I think in about three weeks, he was seized with the usual symptoms of hydrophobia, and died.

Might not hydrophobia, whether human, canine, or feline, be considered as a disease of great irritation produced by a variety of causes, the principal of which is the absorption of the saliva of an animal labouring under the same disease? If this would be a proper definition, it would not be a contradiction of the above quoted axiom.

If any credit can be attached to the cures of this disease by vinegar, mentioned in the same paper, p. 61, and I should hope that on a subject such as this, nothing untrue would be willingly inserted, I think they afford great encouragement to British practitioners to give that remedy a trial; but surely, if such a cure as that said to have taken place eleven years ago at Chaumerac, had really occurred, not even so powerful a preventive as hostilities between the two countries, would have hindered such "glad tidings" from reaching us. The attention of the medical world, however, seems now so laudably turned towards the cure of this dire malady, that I have strong hopes of shortly seeing it scratched off the list of diseases that stand their ground at present, at once a scourge to the world, and a disgrace to the medical profession.

I am, &c.

W. L. KIDD,

Surgeon, his Majesty's ship Raleigh.

Downs,
April 20, 1810.

To

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

ALLOW me, through the medium of your valuable Work, to suggest a few remarks on the subject of uterine hæmorrhage, as far as it regards the treatment of those cases where the placenta is attached over the os uteri. I am the more induced to trouble you with my ideas on the subject, as two papers have lately appeared in your Journal expressly on the subject, in which a contrariety of opinion is manifested. In midwifery, as in all the other branches of the profession, rash temerity is as much to be condemned as supine inertness, both are equally unjustifiable in cases of danger.

Mr. Davis, in his paper, justly observes, that in other cases, the practitioner will have plenty of time to deliberate upon the best mode of treatment to be adopted, but in those alarming cases to which he alludes no time is to be lost; his observation is certainly highly judicious and deserves attention, and I do certainly think it much safer to lean on this *side*, than to procrastinate and delay your exertions. Mr. Spencer seems to think this *bad advice* for junior practitioners, and likely to produce rash and undetermined practice; he advises a consultation to be called. But let it be remembered that this is not always practicable; if it was, it certainly is most adviseable, and ought to be resorted to. Danger in those cases of attachment of the placenta over the os uteri, is always increased in proportion to its dilatation, consequently it becomes highly necessary to deliver as early as possible, as every increase of dilatation produces an increase of hæmorrhage, and consequent danger. There can be no determined rule laid down in these cases respecting the safety in waiting for the dilatation; for one woman shall bear the loss of twice as much blood as another, with no more injury to the constitution; but still it is of consequence to prevent as much as possible a great loss of blood, and the only possible means of doing that is by *early delivery*; by waiting, the patient becomes *more* and *more* exhausted from profuse hæmorrhage, and consequently is ill adapted to undergo the fatigue of an operation. By thus urging promptitude and *decision*, I by no means advocate *rashness*, that is highly reprehensible. Before an operation is performed (whether in surgery or midwifery) the grounds

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upon which it is done ought to be well understood, and the practitioner satisfied in his own mind that it is necessary; if so, then surely there can be no blame attached to performing it at once, without any further hesitation and delay. Another point of some consequence in these cases, is the state of the os uteri, not only to ascertain how *much* it is dilated, but whether it is dilatable; if it is in that state as to admit of easy dilatation without much force, there can be no *doubt* as to the propriety of proceeding in the operation; if, on the contrary, it is in a state of rigid contraction, I should think we may safely wait till dilatation begins to take place. As I observed before, hæmorrhage can only increase in proportion as the dilatation goes on; if the patient is of a full plethoric habit of body, would it not be adviseable to bleed, in order to induce a relaxation of the system?

These few remarks are penned not with a view to canvas the merits of either of your respectable Correspondents, but with a hope that other contributors to your Journal, may be induced to offer their observations upon so important a subject.

I am, &c.

OBSTETRICUS.

A remarkable extra UTERINE CASE.

By Dr. Osgood, *of Andover.*

[Read before the Massachusetts Medical Society.]

A. B. of a lax and irritable habit, was married at twenty-two years of age, from which time to the expiration of two years she had two children. From the weakness of her constitution she suffered more than usual during the months of gestation, and remained both times in a weak state for two months after delivery, and was able to give suck to her children not more than five months. In the 25th year of her age, in October, 1784, she became pregnant a third time. She had no complaints in November and December but such as she had been accustomed to during the weeks of conception; but in January, 1785, she complained of an unusual lameness in and about the loins, and particularly the left hip. This lameness gave her but little apprehension of evil, and she made no application to me till the 13th of February, when she was attacked with

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with those pains which usually precede an abortion. Having inquired what had befallen her the preceding day (for it was evening when I was called) I was informed that she had walked hastily on the ice, and that she had been greatly alarmed by the news that two of her neighbours were thought to be dying. I supposed that these causes were sufficient with her to produce a miscarriage, unless prevented by the assistance of art. I immediately opened a vein, and, after plentiful bleeding, ordered her rest and gave her freely of opiates. These had the desired effect; and the next morning she had no complaints that threatened an abortion, but her lameness was much increased, and she complained of pain in her left side just below the short ribs, and extending to her stomach, together with some uneasiness. I recommended rest and gave her sedatives and antispasmodics.

The 20th of February, she was suddenly seized with pains in her stomach and side: I again had recourse to venesection, and gave opiates with sal succin.; and after extreme pain for six hours, she fell into a swoon. Such paroxysms of distress recurred often, nor was she a day free from pain and uneasiness in her left side, frequently accompanied with excessive vomitings, and fever with costiveness. I endeavoured to give remedies according to the nature of her complaints, mild eccoprotics, antiphlogistics, and sedatives. Such were her complaints till the 13th of March, when suddenly, without pain preceding (for her pains were generally severe before her vomitings) she vomited nearly half a pint of pus, without any warning, nor was there any mixture of food with it, though she had breakfasted but a few minutes before. Her distress was extreme immediately upon this discharge, beyond every thing she had experienced before, and accompanied with a sudden and great debility; indeed it appeared, that now the period of her sufferings was arrived, and that death would shortly close the scene. But Heaven ordained otherwise, and she was to live, to give an example how great sufferings a feeble constitution can bear. She continued to vomit through the day, though very languid, and the remaining discharges from her stomach had some sprays of pus and blood. The next day she was free from pain, but her soreness and languor were great: sore mouth, and other symptoms of a depraved state of the juices appeared; and an unnatural heat, with a weak and quick pulse, gave me much uneasiness, especially as the pain in the left side returned, but not with that severity as before the purulent discharge.

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discharge. But there was a sensible enlargement just below the short ribs, greater than we could suppose was occasioned by the fœtus, so early in pregnancy, though the motion of the fœtus was sensibly perceived by the patient, and I could plainly distinguish its motions by applying my hand on the left side of the abdomen. The pain, sore mouth, and fever, continued till the 13th of April, when she was attacked with nausea. but did not vomit; but a diarrhœa followed her for that day with appearances of pus mixt with the fæces. I consulted Drs. Baylies and Perry, and we fully believed that the diarrhœa was occasioned by the discharge of another abscess, as the pains in the side abated, and she continued free from extreme distress the remainder of April, and till the latter part of May; during which time her appetite returned, and she gained as much strength as to sit in her chair an hour at a time, though she could not stand erect, nor walk without assistance, nor could she lay on her right side, and was almost every day attended with a difficulty of respiration, which lasted from one to two hours, which I considered as an hysteric affection of the lungs, as she generally found relief by fœtid and carminative remedies. But as my patient was much better, and the month of June was near, we hoped that at the expiration of her pregnancy her trials would be at an end; but the month of June seemed but the beginning of her trials, for she was then confined to a bed of pain and distress, cramps and convulsions, and was never off it till the last of October. The first of June she was attacked with severe pain in her left side, and just below the sternum, accompanied with vomitings and spurious pains, resembling parturition pains, and continued every day, though not equally severe, till the 20th of June, when her pains were such as usually attend labour, or rather were grinding pains not any wise forcing, but they continued fourteen hours very regular and severe; I frequently examined her vagina, but could make no discovery that labour was approaching. But as she had repeatedly, for twenty days, had pains similar, to no purpose, and I had given opiates, I was determined to let her pains go on and only support nature, till nature being exhausted the pains almost ceased, and I then gave an opiate. She had no more pains from that time that gave me any encouragement that she would be delivered. The 24th she informed me that the last night she had no rest nor pain, but was much convulsed through the night, and said that her child was dead. I endeavoured to persuade her out of that opinion,

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opinion, as the want of motion for a few hours could not be an infallible symptom of the death of the fœtus; but she was not to be persuaded: I was however in a few days convinced that it was really the case, as no motion from that time was perceivable; and her breasts which had been turgid became flabby, and she was attacked with faintness, which continued an hour notwithstanding a free admission of air, and a free use of vinegar, volatiles and cordials. This faintness returned every day for three weeks, and lasted nearly the same time, and it appeared sometimes as if she would fall into a total deliquium. When she was not faint, she was a great part of the time in great distress, and the abdomen for some time appeared rather to increase than lessen; but whether the enlargement was occasioned by flatulencies in the intestines, or was in consequence of the death of the fœtus, I could not determine. The 20th of July she was attacked with a uterine hæmorrhage, which was moderate and accompanied with bits of a fleshy substance, which I then considered as parts of the placenta; and as she had some slight pains in the region of the uterus, I once more hoped that a delivery might be effected, especially as the os tincæ was a little dilated. This discharge continuing for several days, with the above appearances, and no fœtor attending them, nor any further enlargement of the os tincæ, nor any pains that might be considered as parturition pains, I began to think seriously that the fœtus was not in the uterus. I wrote to Dr. Appleton, of Boston, to my honoured father at Andover, and called in the advice of Dr. Bayles; they all agreed that the fœtus was not in the uterus; and as palliatives and a supporting diet was what I had recommended for a long time, they advised the continuance of the same course.

On the 28th of July, she was attacked with a distressing cramp, which was severe beyond description; the paroxysms continuing from four to eight hours, accompanied with severe convulsions. The paroxysms at first were not very frequent; but the latter part of August and the month of September, they returned almost every day, and nothing but opium and the warm bath, with frictions, gave any relief: musk, amber, and fœtid gums were tried to no purpose; and finally, she was obliged to take twenty grains of opium in a day. Her disorder was so violent as to produce all the varieties of tetanus, emprosthotonos, opisthotonos, &c. and every muscle was, in turn, affected. Such was the severity of this disorder, that it appeared as if

every

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every paroxysm would put a period to her existence. But as the cold weather advanced, and the size of the abdomen lessened, these severe spasms abated; and after the 5th of October she had no paroxysms of the cramp; but flatulencies of the bowels prevailed; and as there appeared some better prospects, I sought for some effectual means for their removal. Having lately read the history of Mrs. Low, in the American Magazine, printed in Boston, for 1746, and found that great benefit accrued to her from the application of the emplastrum e cymino to the abdominal region, I made the same application, and it afforded her relief beyond my expectations. Such for four months past had been the weakness of her digestive powers, that no solid food could be taken without exciting immediate distress; but by the middle of October she could receive an animal diet, so that by the first of December she rode out, and in January, 1786, had a return of her menses, which were regular till January, 1788, when she became pregnant, and at the expiration of nine months was delivered of a well-grown healthy child. During this last pregnancy and labour she was as well as she ever had been when pregnant, or at the time of delivery. Before her last pregnancy, the tumour occasioned by the fœtus was about the size of the head of a nine-month fœtus, laying to the left of the umbilicus, extending downwards to the pubes. But the first fortnight after her last delivery the tumour was mostly upon her right side, but is now, when standing, directly over the pubes. From these motions it was conjectured that the fœtus was originally in the left Fallopian tube, but that the tube was burst.

She was delivered of a son in November, 1790, and another son in July, 1793, and of a daughter in January 1796; during which time her health was better than I should have expected, nor did the tumour in her left side, during her pregnancies, cause greater uneasiness than in her pregnancy of 1788; nor were her sufferings greater in these several labours than was common in her labours before the tumour in 1785. After the birth of the daughter in 1796, her strength did not return as usual, and her debility was increased by an abortion the latter part of December of the same year. She had abortions every year from that time till the present year 1802, when on the 17th of January, she was delivered of a healthy daughter. The first months of this last pregnancy her complaints were not more than she had commonly experienced in the early

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early stages of pregnancy. She rode several short journies, and attended to her domestic concerns. About the fifth month, as the enlargement of the uterus pushed the tumour out of the pelvis, the pain and soreness were very distressing, much more than in any preceding pregnancy (except the pregnancy, the supposed cause of the tumour in 1784 and 1785). The uneasiness was confined to the left side, and in the place of the tumour, and every motion from within and without was distressing. These complaints lessened after the seventh month, but the general complaints of a gravid uterus were very distressing, and for two months before the birth of the child she was frequently afflicted with pains, that gave apprehensions of immediate labour. On the evening of the 16th January, labour commenced by the breaking of the membranes, but the pains were not very considerable till the morning of the 17th, when her pains, or rather distress, was constant, and continued without cessation for four hours, and she was then delivered of a full-grown healthy daughter. The hæmorrhage and pains were not so great after labour as she had been accustomed to, and she had no unusual complaints till the evening of the 19th, when she discharged several large grumous clots, then slept and awoke at four o'clock of the 20th with universal distress, and a long continued rigour, which was followed with great heat. By the timely use of sedative and antiphlogistic medicines the violent symptoms abated; but alternate chills and heat, with a tense abdomen, continued. The lochia in common quantity, and the milk appeared at the usual time, but not in usual quantity; and by the sixth day the milk was very trifling, and soon ceased. The left side of the abdomen was much enlarged, and the pain and soreness distressing. The latter part of January aphthæ appeared, and the singultus was distressing. These complaints for a few days were alarming, and threatened immediate dissolution. The 10th of February the heat abated, the aphthæ and hiccups much lessened, and her appetite better; but her strength not increased, and the rigours and paroxysms of fever were as before. February 15th she had several stools, (the first from January 17th without an enema or cathartic) and symptoms no worse till the evening, when the discharges became frequent, and, instead of fæces, uniform pus, which was extremely fœtid, and continued till 10 o'clock of the 16th, when great debility was induced, and I momentarily expected a period to her sufferings

ferings and life. After several hours of extreme langnor she revived, the tumours lessened, and by the 20th she was recruited to nearly the same strength as before the purulent discharges; the quantity of pus evacuated from the 15th to the 20th was estimated at three pints. From this time it accompanied almost every discharge of fæces, and frequently the discharges were only pus, and very offensive: her bowels were no longer constispated, her appetite better, but by no means regular; and, at all times she complained of an indescribable nauseous taste. From the first of the aphthæ she frequently vomited, and the ptyalism for three weeks was very great; nor did an aphthous state of the fauces leave her. The latter part of April she was able to sit in her chair, and with assistance walked; but her feet swelled, and her appetite lessened. May 4th and 5th, the weather being very warm, she vomited almost every thing she took, which continued till the 13th, then ceased, sore mouth came on and delirium, and she expired on the 22d.

On the 23d, Doctors Bricket, Kittredge and Pearson, were called to dissect and examine the tumour, which had afflicted her for more than seventeen years, and which I supposed the cause of her death. She being a near friend I was not present at the dissection. They informed me, that the tumour extended from the navel, lying on the left side, and into the pelvis. They found the uterus in a sound state, as was the right Fallopian tube: the left Fallopian tube was very greatly enlarged and entire, and they took therefrom the bones of a full-grown fœtus.* The tube adhered to the peritonæum from the upper edge of the os ilium for some considerable distance above. It also adhered to the colon, where there was an aperture, which was the outlet of the pus, which continued to discharge from the 15th February till her death. The tube had thickened with its enlargement, and was found to be nearly half an inch in thickness; the bones of the fœtus had nearly perforated the tube in several places. The ovarium and fimbriæ were obliterated.

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* These bones are now in the possession of the Society.

Del

Dr. Alder's *Proofs of his Theory from the remote Causes of Diseases and Fevers.*

(a Continuation.)

Dr. HAYGARTH has sharply remarked upon Mr. Webster, that "with a poet's eye with a fine *phrenzy* rolling," he has glanced from earth to heaven, and from heaven to earth, and so forth; a remark, however, which nobody will make upon Dr. Haygarth or his followers; for, (speaking without any hyperbole) when *they* wish to hurl Mr. Webster and his work into irrecoverable contempt, merely for placing before the world *historical truths*, *they* shut their eyes most obstinately and wilfully against all phænomena, whether on the earth, or in the heavens, in the waters or in air, and fix them only on such circumstances as give some countenance to an idea which they had *previously conceived*;—an idea I will not say conceived with the fine phrenzy of a *poet's* imagination, but certainly by no means the offspring of fair induction, but altogether a child of narrow views, fancy, and mere supposition: for shutting their eyes against all circumstances, which we must all know *do* cause fevers, and which, all authors, as well as Mr. Webster, shew *prevail, they* have fixed their mind upon one which they suppose *might* cause them, *(though in this they are mistaken;)* and then, which is nearly equally surprising, they have, *(without ever proving the existence of* THIS) set themselves to work to fancy how it could so extensively ACT; and the result of this, their *second fancy*, is more monstrous than the child of their first, viz. fomites! objects which are ten thousand times more to be dreaded than a fever patient himself! Such monsters of desolation these, *(if we trust their* ACCOUNTS) that no person in the land is, or can be safe, from them; and, indeed, if these accounts about fomites had been true, we must all have been destroyed long ago: for these do every thing they effect after a week, a month, a year; after they have been exposed to the air, the sun, and to water; and yet they are made to kill *one*, when twenty or *forty*, &c. others have been much *more* exposed to them (often *previously)* with impunity! while the fever-body from which these derive all their virulence, *is now found by the same gentleman*, to be quite harmless at the distance of a yard, a foot, *an inch!* nay, quite harmless, in contact to those who are *seasoned to contagion!* (another strange fancy-spun

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spun doctrine!) And also to others. But, indeed, Dr. Haygarth's doctrines are now so much losing their influence with their followers, that the most intelligent, clear-sighted, and respectable of these, begin to declare that contagion *immediately from the human body*, will not act, except a person is *predisposed to fever, or there be a certain bad state of the air.*

I shall pass over then these *fancies* of Dr. Haygarth, to dwell upon Mr. Webster's *plain narrative of facts.*—It requires a little exertion to consider those awful convulsions in nature, which *seem*; on most occasions, to be (some or other of them) connected with epidemics. I say *seem*, but that they *often are so*, must appear to the most sceptical, who at all rely on *history, beyond all doubt*, for they have *too often attended*, to be otherwise than *connected*; and *the chain of their connexion too is, for the most part, plain.*

Volcanic eruptions, &c. The interior of the earth must be devoured by fires to a great depth; for it has commonly happened, that many volcanoes have been active about the same time, and some of these situated at the distance of some thousand miles from each other; while the eruptions of fire, and in other places of vapours, only where there has been no volcano and earthquakes, (sometimes shaking whole kingdoms, and several of them, many of these kingdoms at a great distance,) also meteors, droughts, &c. that is, most of the other phænomena happening about the same period so constantly, and at great distances of space, can no more be accounted for than the volcanic eruptions, but by attributing them (as Mr. Webster has for the most part done) to fires often being active within the earth very extensively at the same period. Mr. Webster does not seem to suppose this general activity of *internal fires* depends upon their *communicating*, but to their having some *common cause*, he thinks *electricity*; and he thinks he is confirmed in this latter opinion by the comets and meteors, which at the same time have been frequent. But I rather think their general activity depends much upon their *communication*; and that this is owing to their great *depth*: for fires which evolve gases, so as to shake *whole kingdoms* at once, may well be supposed to be *a thousand miles deep, or much more.* The same earthquake, indeed, will frequently be felt for much more than a thousand miles in extent. The earthquake which destroyed Lisbon, was felt in America. And Mr. Webster's conjecture about the synchronous activity of internal fires being owing to *electricity*, receives no confirmation from meteors being prevalent when

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internal fires are active, because it does not appear that these are *electric matter*; they mostly appear no other than *ignes fatui* on a large scale, and in the higher regions; they do not move *like* electric matter, but like a *slow combustion of hydrogenous or phosphoric matter*, OR BOTH; and they are like the latter too, and not like electric matter, when they are more stationary and permanent; and they have been *seen to arise from volcanoes*.—Besides, we do not find that the *aurora borealis* was noticed among the dreadful phænomena; and we now perceive this *very common*, (though it is supposed to be owing to electricity) without observing *any bad consequences follow it, or any thing bad prevailing with it*. I have noticed it here at Edinburgh most wonderfully striking, (covering with its vivid dances one-eighth of the sky) without perceiving any thing unusual or bad preceding it, prevailing with it, or succeeding it.—And I do not think that the appearance of comets has proved very much for Mr. Webster, though I cannot say that planets are without magnetic or electric power, as these have but *rarely* been joined with his other appearances; for it is evident he has been *misled by his authors*, and has often mentioned *a comet appeared*, when there could have been *no more than a* METEOR; as he has mentioned *many* more comets than astronomers have any account of. I maintain then that some internal fires are very *deep*, (perhaps as deep as the centre of the earth;) though no doubt others are superficial; and I believe that many of these fires *communicate*.

But these positions being allowed, we have at once a clear theory of all these strange and awful appearances which are so apt to prevail together. For such fires may shake (in different places) the whole earth, by evolving and rarifying gasses: or they may shake only a few kingdoms, or one kingdom. They may cause many volcanoes to be active about the same period, (however distant these may be) or they may vent themselves at a few, at two or one. They may discharge their vapours into the sea, as well as on land, and thus cause the sea to swell, to grow boisterous, and if near shore, to overflow its banks, and they may disease the fish in it to a great extent, or kill them; they may give a sudden or great agitation to the air, change the currents in it, and render it as unwholesome to land animals, as they may the sea to fishes. And they may send out such an abundance of deadly gas, as is sufficient to cause mortality throughout the world, while at the same time, they may rarefy it so, that as soon as it breaks forth, *it may ascend*

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cend to the higher regions, and so be distributed to distant places, and descend according to circumstances. But if such fires *may do* such things, it is to me pretty clear that they *have done them*; for all these things have often happened, and it does not appear *to me* that they can be attributed to any other cause. And according to the above account, it cannot be surprising that volcanic eruptions, earthquakes, and such like, *precede* or *follow* epidemics, and *are yet* connected with them; but, on the contrary, it would be strange if they often did not; for morbiferous gasses may be, and we know often are, experienced *long before* volcanic explosions, or long *after* them. And such gasses may either spread *immediately* over the surface of the earth, or they may ascend and mix with the clouds, or rise above them, and not descend for *some time*. And many expirations of gasses, which prove lethiferous, may happen before earthquakes, or any sign of agitation in volcanoes. And if we rely on respectable *history*, we may say such things *often do happen*.

I see no more difficulty in supposing that such fires as I am speaking of, may generate and discharge *noxious vapour* sufficient to *disease* the world, than that they can raise and emit enough to *shake it* by earthquakes, which latter, however, it may be *more clear* that they actually do. But I think it is altogether as impossible to attribute many epidemics to any *other* cause, as it is earthquakes, or more so; and I do not believe, at the same time, that that vast abundance of poisonous gas, which comes often for many times a year, and for some days at a time, from Æthiopia, can be, *with any shew of reason*, judged to arise from any other source than volcanoes.

Heat and dryness of the earth, drying up of springs, failure of crops, and famine, evidently *may* arise from internal fires, and when *conjoined*, can be attributed to no other circumstance: and as fires do not burn without generating and emitting *vapour*, these phænomena indicate that the air either is or will be bad *somewhere*. An abundant generation of insects, as well as putrefaction, *may* sometimes, in some measure, be owing to the heat of the earth; great armies of locusts may be owing to their generation having been abundant that season, and their flight to distant countries may arise from their food being scanty at home. A *moist season* naturally makes the air unhealthy. Thick fogs, darkness from vapour; fœtid clouds or dews, speak as plainly *as a moist season*, what the state of the air is. Looming, &c. or a state of the air which makes objects

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jects seem different from what they are, proves a vapour in the atmosphere; and as this cannot be either wholesome or totally indifferent, *it must be a bad one.* Great disease among beasts, sheep, or cats, &c. may, by Contagionists, it is true, be said to be owing to "Contagion;" but disease among fish and the flight of birds cannot; and as these, and all the rest, indicate the prevalence of much noxious vapour; and this actually is able of itself to disease or kill cattle, &c. I do not see why the interference of any unnecessary agent should be supposed, *when none such is proved.* It is *contrary to our laws,* to admit a *suppositious* cause, when we can find a real one is present, and sufficient to produce the effects.

The numerous diseases, whether inflammatory, febrile, apoplectic, or mental, &c. which Mr. Webster has mentioned being epidemic, and evidently from something in the atmosphere, are many of them, such as were never *suspected to spread by* CONTAGION; as pneumonia, the intermitting fever, apoplexy, (and the various tendencies to it) and mania, with some others; indeed, it is now ascertained *the bilious fever* does not; but all of the complaints he noticed are such as I have maintained, *may arise* from an impeded pulmonary transmission, whether this were caused chiefly by bad air, or by bad air equally with pain, or some other agent. And where there is nothing to prevent us, it is better to attribute them all to similar causes, when these causes *are known to be applied, and can produce them.* But there is *nothing to prevent us; for the existence of* CONTAGION *was not proved in a single case,* and in many of the cases it was positively said *not* to be present. If we were to allow contagion to act too, as well as bad air, &c. we should therefore allow what, in some cases, it was proved *was not present,* and we should in the rest admit an *unnecessary* as well as a *suppositious cause.* The small-pox and measles greatly differ in this point, for two reasons;—*first, they could not be caused without contagion; and secondly, contagion was proved to exist with them.* These complaints are totally different in their nature from any of the others; very different from fevers, though they certainly come nearer to these than to the rest. There evidently is a complete bar between them, by the one occuring only once during life, and by the other happening as often as the causes of it are applied in sufficient violence. But small-pox and the measles have often been more epidemic and mortal, under a bad state of the air, than at other times. The bad state of the air, indeed, clearly ac-

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counts for their being more mortal where they attack; and it also furnishes us with some reason for explaining the frequency of these complaints under it, for we are certain, that from the violence or malignity of these diseases at that time, *much more contagion must be generated* by each, (I suppose ten or twenty times more) *than when the air is good;*—perhaps *a hundred times more;* and it is not improbable, that the state of the air rendering the body liable to disease, or actually *unwell,* causes it to be infected by contagion more readily.

Almost all that which has preceded, tends to prove the prevalence and abundance of bad air, from *one source alone,* viz. terrestrial expirations; and this appears to have been by far the most copious source. It is true, we have read of moist or wet seasons, of thick fogs, dark or fœtid clouds, rotten dews, &c. accompanying epidemics; and of these latter being more frequent and fatal in moist or marshy situations, in badly-ventilated places, and near the slaughter-houses at Cork, &c.: and *most* of these things shew a bad air, *not derived from the interior of the earth,* to have done much mischief: but the evil done by them does not appear nearly so extensive *as that occasioned by bad air, derived from the interior of the earth;* and indeed, when descended clouds prove very morbiferous, we have reason to think they contain some volcanic expirations; for independent of what I have before said, it is clear these do mix with the clouds from the sooty snow which fell (after an eruption of Mount Heckla) in Scotland.

Disease among beasts and sheep may seem to indicate bad air that arises from the surface of the ground; just as diseases among birds or fish, or the flight of birds, (for they generally forsake a place, if they can, when the badness of the air reaches so high as to affect them) appear to prove the bad air then prevailing, comes from another source. But cattle in Sicily and Italy have sometimes died in great abundance, in a great measure, from heavy *volcanic* vapours, (as noticed by Mercatorius, and one or two other authors.) It has sometimes happened, that the vapours from Heckla as well as Ætna and Vesuvius, have been confined to a small district around their sources, producing endemics there in the human species as much as in cattle; but when we consider the weight of the sulphureous gas, and the carbonic acid, and consider that the latter from some caverns is discharged nearly pure, and that the former has evidently been (from the sulphureous smell) sometimes copiously emitted from volcanos, we shall not be surprised,

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surprised, if, in volcanic countries, terrestrial expirations often affected cattle more than men; though we may, *at the same time,* admit, that the diseases in cattle are *in general* owing most to vapours which arise from the surface of the earth, or are *precipitated* from the higher parts of the atmosphere. —— I come now to notice those *tides of the air, evaporation, dews, thaws, the descent of clouds, &c.* Every body is subject to gravitating attraction (cæteris paribus) in proportion to its weight; and every fluid body is moved in proportion to its weight and mobility. The atmosphere being so much more mobile than water, must be much more moved by planetary attraction. It will have greater tides than the sea. These might be of little consequence in my present undertaking, did not the planets, in making these tides, draw all the vapours, as well as pure air, and also facilitate evaporation. They must do so according to all known laws:—*but we find they do.* Every body looks to the full and new moon for a change of weather; and long observation has established the fact, that the air, at such times, is much more apt to be very cloudy. But the clouds drawn together at such times, are sometimes heavy, and roll upon, or lie on the ground, or fall in rain, and sometimes they are light, and ascend so high, that the earth and its inhabitants are nearly free from them. This is a theory which the best established of the laws of Nature, and common and long observation, both confirm.

But taking this for granted, we have a solution of some *more difficulties;* for the greater prevalency and mortality of diseases at *these periods,* is a fact established beyond all cause for doubt. Dr. Johnson has, it is true, thought fit to assert, the weather has no influence upon the spirits and the mind; and Dr. Heberden has not allowed that lunacy (as it is called) is at all influenced by the planets. But great men expect to be indulged in great *fancies.* It is almost impossible for five medical men in a hundred to deny either: though it would be very fair for them to say, that they do not invariable *hold.* They may have seen people not perceptibly affected by the weather; and they may have seen numerous examples, where lunacy was not influenced by the moon. I have known a person, who said he always felt most pleasant in a moist atmosphere; and cheerfulness, a good state of the alimentary canal and pulmonic system, with a dry house, may prevent it from having much influence upon most: while, on the other side, a foggy, or wet atmosphere, in these lower regions, is not,

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as I have said, by any means a constant attendant upon planetary attraction; the vapours drawn together may be greatly rarified and elevated, or they may have quickly fallen in showers, so as to have purified the air. On some occasions too, as in frosty weather, there may have been no vapours to be attracted. But fevers are the diseases which I have now to consider. Mr. Balfour has, from long observation affirmed, that those in India have often been much more fatal and frequent at the full and new moon than at other times; and his observations are confirmed by the public testimony of a great number of military gentlemen, who resided there when he did. A learned gentleman thinks he gets over this by saying people would be tempted to walk by moon-light, and in walking, would expose themselves to noxious dews; but this, at any rate, (supposing it was a circumstance overlooked) does not account for aggravations of fever, except (which is admitting my theory) that the vapours are greater at these times; nor does it explain the attacks at the new moon. Dr. Lind speaks in confirmation of the fact too, that fevers are more apt to attack, and to recur, at the full and new moon. But Dr. Jackson, that the planetary influence in the West Indies, and in the United States of America, *where he has* resided, is pernicious between the new and full moon; and this, (though brought to support the opinion) by appearing so at variance with the preceding observations, has a great tendency to destroy it altogether. But Mr. Guthrie observes, "when the sun becomes vertical, or nearly so, in the West Indies, he draws after him such a vast body of clouds, as shield the people below from his direct beams, and then uniting and falling in rain, cool the air and refresh the Country;" and it is most probable, that the moon may often have a somewhat similar effect; though, I apprehend, the vapour, which, in such cases, keeps under the sun, is owing, in a slight degree, to some other causes than his attraction; that is, to his heat rarifying the air underneath, and making room for vapours; and to the rotatory motion of the earth bringing up vapours on one side faster than the circumstances above named will let them depart on the other. But as the sun's rays are known to heat bodies immediately which reflect them, and those which freely transmit them, *only by reflexion*, the vapour drawn together is likely to be heated and rarified very much near the earth, and to become condensed at a height much more above the reach of animal

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mal respiration than the earth's reflexions. And this seems another reason why the vapours the sun brings underneath him often do more good than harm.

I am, &c.

THOMAS ALDER.

Edinburgh, May 1, 1810.

(To be continued.)

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE good effects of carbonic acid when taken into the stomach is well known to most of the members of the medical profession. This, I believe, was first observed by Dr. Macbride, of Dublin, and soon afterwards by Dr. Percival of Manchester, who warmly recommended it as an antiseptic.

Its effects were still more promulgated by that eminent chemical philosoper Dr. Black, whose discovery it was, and who found it very useful in calculous complaints. The manner in which this is commonly exhibited internally, is by uniting the juice of a lemon with subcarbonate of potash, in sufficient quantity to saturate it, and this is to be taken in a state of effervescence. Others give it in a more diluted form, as an agreeable beverage in febrile diseases, but in this state it ceases to emit the carbonic acid.

As the good effects which proceed from this medicine are allowed to arise from the action of the carbonic acid on the nerves * of the stomach, and as lemons are now expensive, and even prohibited in some hospitals, I was led to search for a substitute for a remedy so valuable in almost all cases of irritation of the stomach, as well as in putrid diseases. Having reflected on the manner in which I could most conveniently introduce the gas into this viscus, well knowing its deleterious effects when inhaled, although Dr. Percival thought it a valuable remedy in phthisis, (which, no doubt, proceeded from its salutary operation on the stomach) I found the carbonate of magnesia, which contains more of this gas than the other al-

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* Vide Black's Letters.

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kaline earths, lime excepted,† to answer very well when united with distilled vinegar. This acid will be found sufficiently powerful for disengaging the carbonic acid gas, and is at the same time so innocent as to be taken with perfect safety. A scruple of the carbonate of magnesia saturates about an ounce of this acid, causing a violent emission of fixed air, which continues for some time. This is always to be used in a state of effervescence, as when diluted, it neither emits gas nor unites with the water.

This I have not only used with great success in all cases of irritation of the stomach, but more especially in continued fevers, where debility was very great, and where, from the disordered state of the stomach and alimentary canal, no other medicine could be retained. On being received into this organ, it not only remains, but the patient experiences an agreeable sensation from it, often superseding the necessity of the accustomed drink. I have had numerous opportunities in the military hospital of witnessing its good effects; and being myself subject to a dyspeptic complaint for some time, which was very much increased by inanition, and having tried purging, vomiting, and a number of bitters and astringents, I was induced to ascertain its effects. This remedy I took when the pain was very great, and it had no sooner entered the stomach than it caused several acid eructations, after which I became quite easy. This I have often repeated with similar results.

Of the success of this composition I have had ample experience in many other dyspeptic complaints; but as enough has been said above, I only request that some of your practical Readers may be induced to give it a trial. They will, at least, find in it an excellent substitute for the common effervescing draught, and it may always be had recourse to, when lemons cannot be obtained.

I am, &c.

W. H.

Ipswich New Barracks,
May 7, 1810.

† Carbonate of magnesia, as obtained in commerce, does not contain a maximum of acid, it is only by a subsequent process it is ever fully saturated with the proportion of acid mentioned by the author. Ed.

To

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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN your Journal for April, there is a question put to me, Whether a sufficient and steady pressure cannot be made upon the artery above the clavicle, so as effectually to stop the current of blood in the axillary artery? It has frequently been done, and is what I believe to have been universally adopted, in the numerous instances of amputation at the shoulder-joint, that have come to my knowledge. With respect to the assertion following the question, I doubt if it will be found to be unexceptionable. Let us suppose a surgeon of a sloop of war meets with a case requiring amputation at the shoulder-joint; to the purser, who generally assists him, he would trust for compressing the artery; after having adjusted the key (or any other instrument he may choose to adopt) upon the artery, what a situation the surgeon would be in, as soon as he has divided the artery, should the purser happen to faint, or not to compress the artery, and no surgical assistance near him. This, although embarrassing, it may be asserted, would not much impede the operation, as the surgeon would compress the artery with one hand, whilst he takes up the bleeding vessel with a tenaculum; yet, although this *may* be done, I myself should prefer guarding against it, by tying the artery. In my letter in your Journal of February, I did not recommend tying the artery in the axilla, as preferable to compressing the artery above the clavicle; I only mentioned it in describing the manner in which I had operated. I will now point out my reasons for having done so. I have previously mentioned that there were only two medical officers present at the operations, and I preferred the surgical assistance being directed to the supporting and moving the shattered limb, in assisting to tying the arteries, &c. in preference to the compressing the artery. I also wished the patient to be kept as quiet as possible during the operation, without much holding; and as the pressure above the clavicle when made sufficiently firm, completely to stop the current of blood, is extremely painful, I felt pleased in having it in my power to prevent this, as the motion which the patient gives to the shoulder, in trying to get rid of the pressure at the clavicle, unless he has the greatest fortitude, must be extremely troublesome, where the operator is not surrounded with numerous hands to keep the patient firm.

I am, &c.,

J. HOWE.

May 8, 1810.

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Observations on Convulsion, as a Consequence of Disease; illustrated by Cases.

By Mr. J. Howship, Surgeon.

In Continuation.

A Case, in which very slight Derangement in the Structure of the Brain produced Convulsions, eventually terminating fatally.

Captain F. T. of the 82d regiment of Foot, a gentleman twenty-eight years of age, had been long troubled with an hæmorrhoidal complaint; to this he had been subject for some years, but it is here mentioned merely on account of its having been latterly attended with occasional losses of blood. In this point of view, it related to complaints much more important.

The hæmorrhoidal disease had produced several tumors around the verge of the anus, of considerable size when distended with blood. These were rarely attended with any inconvenience beyond that of the patient being obliged to lay down for a quarter of an hour or more, after having passed a stool. In the horizontal posture they were very readily returned, and gave no more trouble till the next day.

On Friday morning, October 7, 1808, while the battalion lay at Scarborough in Yorkshire, an unusual flow of blood took place on the water closet; he supposed that he might have lost as much as half a pint of blood by this accident. He did not, however, experience any sense of faintness, nor the least inconvenience from the hæmorrhage, but, on the other hand, when he left the mess in the afternoon, he dressed for the assembly, and during the evening danced for nearly two hours.

About one o'clock he left the company, and returned home to his apartments, sat down, and was listening to a young gentleman who was reading to him, when in a moment his features became frightfully changed and distorted, and his breathing attended with a most unnatural sound. At the first glance, his brother officer concluded that he must be joking, and began again to read, when in a few seconds he fell into a state of universal spasm and convulsion, and was in an instant thrown down from his chair. The attack was rather that of rigid spasm than of violent and convulsive action.

In a few minutes he came to himself, and appeared to be quite recovered; he felt no pain, and was not in the least degree aware of what had happened. Before he could

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could be assisted up stairs to his chamber, and got into bed, he was again attacked, and remained as before for some minutes quite insensible, and in a state of partial convulsion; after which he again revived, and recovered his senses. He had not been in bed above half an hour when he complained of sickness, and soon after threw off the contents of the stomach; but this afforded no evidence of any morbid condition of the bilious fluid.

The fits still continued to return about every half hour. A drachm of the ammonia prep. was given in a draught, but this apparently did nothing. Aromatics also were advised, and swallowed, but without any benefit. At day-break, he said he felt himself becoming easier, and more composed. Soon afterwards he slept without any disturbance for several hours.

Saturday, October 8. He passed the day perfectly free from convulsion, said that he was better, and that he found his head clearer than it had been during the night; but that he felt himself very weak. This day, at the desire of the first medical gentlemen of the place, he took the saline draught, with a pill of calomel and antimonial powder, of each one grain. These medicines were repeated every three hours. It was expected, that in all probability they would act upon the bowels in the course of the afternoon; but this did not happen, and he had no stool on this day.

Several times towards evening he complained of great pain in the head, and the countenance became considerably changed, appearing overcast, dark, and suffused. About eleven at night the fits returned as before, but with rather more violence.

Sunday, Oct. 9. The attacks of convulsion continued to return, frequent and severe, till the hour of four this morning, when the disturbance seemed again to subside. Soon afterward he fell asleep, and some hours of tranquil repose enabled him to pass the day, to all appearance, in an improving state. He considered himself to be better than he had yet been. At the commencement of the disorder, the pulse had been harder and rather fuller than natural, but had never exceeded 96. The salines had apparently been the means of rendering it softer and smaller than it had been before. Towards the afternoon of this day the appearance of the face altered very much, the complexion assumed a darkened colour, almost livid, so as to render evident that the head was now overloaded with blood. Without waiting a consultation, a very large blister

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blister was immediately laid between the shoulders, and a cathartic mixture given. Towards evening he had a stool. At nine this evening twelve ounces of blood were taken from the arm; and this, he said, "very much relieved his head." Soon after he became somewhat faint; and while this state continued, he several times experienced slight tremors, but no decided return of convulsion. In an hour these appearances vanished, the cold perspirations were not renewed, and from midnight he slept very well.

Monday, Oct. 10. Much better; had rested very comfortably, and was up almost the whole of this day. His only complaint was of weakness and soreness in his flesh. During the forenoon, the tartarized infusion of senna was repeatedly taken till it operated about three in the afternoon. He experienced no return of his complaint. In the evening he retired, and passed the night in comfortable repose.

Tuesday, Oct. 11. Extremely well; had passed a good night, was up early, and made a very sufficient breakfast. During the forenoon he had a motion. There was at this time not the least degree of heat upon the skin, nor any mark of feverish disposition. For dinner he ate a small piece of rump steak, and drank (what had been proposed, but most expressly forbidden) a glass of porter. He retired to his chamber about ten in the evening, just before which he had another natural motion.

About eleven o'clock he was heard to get out of bed, and move about the room; but he made no particular noise, nor any complaint. However, as the people below were very kind and attentive to him, they took it for granted that he was again ill, and therefore hastened up stairs. The door of his chamber he had locked, but they succeeded in getting into the room by another way, and found him standing opposite the door, endeavouring in vain to get the key into the lock, in order that he might open the door. He answered every question with tolerable precision, but it was evident enough that his intellect was confused. The bed-clothes were found about the room, and the whole bed so much disordered, that in all probability he must have had a fit before any one was aware of his relapse. As soon as possible he was again laid in bed, where he immediately fell into another fit, in which the convulsion seemed to spend most of its force upon the left side of the body. It came on just as he had laid apparently disposed to rest and sleep. The first token of the approach of the paroxysm was in the eye-lids, which were slowly raised

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raised up, and opened wide, discovering the eyes turned by a convulsive action, first upward, and then toward the left side, where they remained fixed while the fit continued; the mouth also was violently contracted, but drawn aside to the left ear, the nose and skin being distorted in a similar manner.

By the time these appearances had taken place, the face was slowly moved, with an irresistible force, round to the left side; and now the arms were thrown violently back, and the body and extremities shaken alternately by a sort of spasm, with a general tremulous agitation of the whole frame. The respiration was laborious and quick, the air rushing with an audible sound through the nostrils. In these fits, as in epilepsy, the tongue was sometimes bitten, so that the saliva occasionally passing the lips was sometimes tinged with blood. The action of the heart in the paroxysms just described, was manifestly disturbed, altho' the change seemed to lay in the increased hardness rather than in the quickness or irregularity of the pulsations.

The fits continued to return during the night, with the interval of twenty minutes only; they ceased about four in the morning, after which time he slept without uneasiness or disturbance for several hours.

Wednesday, Oct. 12. About nine o'clock this morning he awoke, much refreshed by the long sleep he had enjoyed, but complained of great pain about the left shoulder and arm, down to the elbow. He said, however, that he found a proportionate degree of ease in his head, and observed, that he was very glad to find that the complaint had left his head, and passed down into his arm. Upon examination, the parts about the deltoide muscle were found very tender and painful to the touch; added to which, he found that he had lost all power of moving the arm; and when desired to raise the left arm to his head, he was obliged to lift it with his other hand. On comparison, it appeared that the affected arm was much paler as well as colder than the other.

In the fits that took place at this period of the complaint, the left arm, from being as at first, most subjected to the force of the spasm, was now almost motionless, the only perceptible action being confined to the muscles bending the fingers. The leg on the left side had undergone exactly the same changes, but in a less material degree.

Thursday, Oct. 13. The fits came on this morning very soon after he awoke, and continued to return at their former intervals. This morning, for the first time, he had an involun-

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involuntary passage of the urine. It had been proposed that Dr. Simpson, a physician of very high character in the neighbourhood of New Molton, should be sent for, and about eleven he arrived. With great judgment, he considered that the disease was a modification of epilepsy, and that it must be treated on the same principle, being in all probability connected with effusion, either of blood or serum, upon some part of the brain, especially as the spasm had more particularly affected one side of the body. In consultation, it was determined that the only system here was that of depletion; and from the unusually small size of the external jugular vein, the opening the temporal artery was recommended. The patient, just recovered from a fit, was assisted out of bed into an easy chair; and as it generally has been found, that where paralysis has taken place on the one side of the body, it has been consequent to some derangement upon the opposite side of the brain, the right temporal artery was preferred, and opened.

In the operation, the blood sprung forth very abundantly, and during the time that the artery was bleeding he had no less than four fits in succession, which, notwithstanding the abstraction of a part of the circulating blood, still retained exactly their former appearance and character; although he several times said in the intervals, that the bleeding had done him good, and that his head was very much relieved. The pulse rose perceptibly, and became more free and full, while the pulsation had more of a natural softness and action of the vessel than before. More than twenty ounces of blood were allowed to flow off in a free stream, without the least appearance of faintness; pressure by a compress and bandage of broad tape was then so applied as to prevent any further effusion.

After finishing this operation, the convulsive attacks remained much the same as before in point of violence, and still returned every twenty minutes. He was carefully laid in bed again, and a strong drastic enema thrown up, which soon after operated.

At three this afternoon the fits subsided, and he fell into a dose; when, some time afterward, he was disturbed, his ideas were perceptibly less collected than heretofore, for when he spoke, he was unable to express himself coherently. About this period it was very curious and highly interesting to observe the various degrees of excitement that existed in various parts of the brain; or, to speak with more certainty, in the different organs of sense.—

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From several circumstances, it was clear that the sense of hearing was infinitely more acute than it ever was known to be in its natural state. The sight, on the contrary, was just as much impaired as the hearing was improved. He was not at this time able distinctly to make out his friends, who came to his bed-side to see him, although he always told the name the instant he heard the voice. The eye had been at one time so sensible to light, that a candle even in the neighbourhood produced uneasiness; but now, the brightest candle might be brought close to his eyes, without his seeming to perceive it. It is remarkable, that notwithstanding this loss of vision, the pupil of the eye still was observed to contract and dilate, in exact proportion to the intensity of the stimulus by which it was thrown into action.

This evening the spaces between the bandages that secured the temporal artery were shaved, and a very large cap blister was applied over the whole extent of the scalp; at ten o'clock the fits again returned with intervals of a quarter of an hour, and they soon afterwards followed each other at periods still shorter; he complained of great and distressing thirst, and his constant anxiety and desire was for "more whey."

A cathartic mixture with infusion of senna and Epsom salts was given every hour, but did not operate; several times this evening he felt a shooting darting pain in the divided artery, which he said was just as if he was being cut again with the lancet.

For half an hour this evening he was making unavailing efforts to pass his water; after this time it came away, and without pain he evacuated more than a pint; since the closing of the artery, the pulse had remained much softer than before the operation, but still it was quickened. At all times, when questioned, he said that his head was much relieved, by the last bleeding particularly.

Friday, Oct. 14. The fits all the early part of this morning had returned with very short intervals, and in the paroxysms the right arm and leg only were affected by the spasms, the opposite members having totally lost their power of action; the head and face continued to be as frightfully distorted as ever.

About half past three this morning he lay back in the bed, and stretched himself out; after the fit was over he heaved a deep sigh, and then lay for some time at perfect rest; breathing did not perceptibly recommence for several minutes, he changed colour, and it was supposed that he was expiring.

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expiring. In a few minutes, however, the breast again heaved, and the fits continued at the rate constantly held for the last forty-eight hours.

With this temporary state of exhaustion, the feverish thirst subsided; his power of expressing his feelings was as perfect as before, but he had no desire to drink, nor would he swallow any thing when offered; at mid-day the thirst began to return upon him again, and before the evening, had reached its former degree of intenseness.

At eight o'clock this evening the pulse was weak, 120. The scalp above the bandage had become tumid, and of a much darker colour than the other parts of the skin; there was a copious and offensive discharge from the blistered surface. Several times to day he felt a desire, without having the power, to expel his water; during the evening it repeatedly flowed off involuntarily, and twice without his seeming conscious of it.

The tumour and puffy state of the scalp from the tightness of the bandage was this evening considered to require some attention. It was certainly too early to remove altogether the pressure upon the artery, while it was nevertheless necessary that so strict a ligature should no longer be allowed to remain. Fortunately, however, it appeared that even if the binders were carefully divided just over the forehead, there might still be sufficient support to the compress, from the adherent state of the tapes around to the integuments of the head. This therefore was done, the divided edges of the tapes flew asunder, but in no other point were the applications disturbed. In less than an hour the best effects resulted from the removal of the ligature, while yet all remained safe in relation to the artery. He felt much relief from the removal of the stricture about his forehead.

In the course of this evening and night, the attacks of convulsion were more frequent than ever, but of shorter duration and less intensity, attended with more relaxation of skin, less congestion in the extreme vessels, as marked by the livid colour of the face and lips, and less injury to the intellect than formerly. The paroxysm did not continue above a minute on the onset of the fit; the skin now fell suddenly white and pale, and a copious sweat broke forth. During the progress of this night, the thirst was very distressing; the forehead and face were frequently incommoded by transient flushes of heat; there was still complaint of pain in the ear, by the divided artery; he frequently said, "my thirst is insatiable." The early

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early re-establishment and controul the mind exerted over the body was truly astonishing about this time, for even while the convulsions were yet upon his limbs, and his respiration stertorous, and to a high degree laborious, he would reach out his trembling hand for the handkerchief to wipe away the moisture from his lips.

He frequently desired to be sat upon the close-steol, but at those times never was able to pass any thing, nor had all the laxative draughts taken within the last two days produced any motion, although he had swallowed more than three ounces of purging salts, independent of other drugs. The periods of interval between the fits through this night were fifteen, ten, eight, and once only five minutes. The extremities were pale, moist, and cool, a free perspiration breaking out after every paroxysm. During the fit the pulse was perfectly regular, but very tense and hard, from the spreading influence of that spasmodic disposition, which seemed now to pervade nearly every part of the body.

Saturday, Oct. 15. This morning the compress was removed, and the remaining parts of the bandage taken away from the temple. The wound was found in a fair state of suppuration; the day passed rather promisingly; the pulse beat 100 in the minute. This morning he had a stool; his mind was extremely tranquil, and more collected than it had been for some days past; the longest interval this day was near six hours.

This evening he fell into a very unusually sound sleep, snoring sometimes very loud. From this the servants imagined that he was much better; but his state appeared to be more a comatose insensibility than a natural sleep. At four this afternoon his pulse was 92 only. It was seven o'clock when the lethargic sleep alternated with the fits, which sleep gradually wore off again.

In consultation this day, it was proposed that a quantity of mercury should be introduced into the constitution, on the ground of its possibly exciting a salutary activity in the absorbent system. The plan had, on a former day, been suggested; and now, as it met with the approbation of all, it was acted upon. Five drachms of the mercurial ointment were immediately rubbed in, and before midnight four more were consumed, so that nine drachms were rubbed in about the thighs this first day of its exhibition.

Between seven and eight this evening it was certainly desirable that more blood should have been taken away, on account of the evident state of comatose sleep by which he

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he was overpowered. This desire however was over-ruled, for when the consultation, an hour afterwards, was held, his apparent state had become so much altered, that it did not meet the opinion of the majority. He was now quite watchful and reasonable, although only an hour before, shouting aloud in his ear, and even shaking, would not rouse him. At nine he relapsed into this apoplectic state, with a stertorous respiration, and an even pulse at 100. This state soon afterwards again subsided, the fits returning precisely as before.

Sunday, Oct. 16. This morning a draught, containing scammony, gamboge, and calomel, of each five grains, was given; this produced a sharp action in the bowels; several involuntary stools were passed during the day. First came offensive feculent matter, afterwards the limpid fluids secreted into the intestines. By the operation of so violent a medicine, it was natural to expect what happened, a very material reduction in the strength of the pulse, still he said he felt much better from the physic; the fits continued their old course, returning at very short intervals. On this day one ounce more of the mercurial ointment was rubbed in upon various parts of the body. The pulse now varied from 100 to 120; the bowels greatly relaxed, and very active. He now complained of no pain or uneasiness in the head, but felt constant pain in the upper part of the paralyzed arm, of which he could not move a finger; the foot and leg on the same side were becoming œdematous.

The attacks of convulsion were now somewhat altered; the eyes and face were still, as formerly, affected first; but the chest was now fixed, and the breast did not heave till the close of the fit. This alteration had taken place by very slow degrees; the respiration formerly had been continued, but with labour and foaming at the mouth, and some degree of stertor. Now, on the contrary, by an uniform and obstinate spasm which seized upon the whole of the muscular parietes of the chest, the air was expelled from the lungs with a sort of scream, and the thorax was apparently compressed to the utmost degree. During this state of spasm, the face and lips assumed a dark and even livid colour; but as soon as the violence of the paroxysm began to abate, which generally took place in about half a minute, the breast again moved, and the air, by short starts, was again drawn into the lungs, by a sort of fluttering action of the muscles. This motion of the muscles of respiration, after a few minutes, settled into a very languid

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guid state of their proper action. The vital organs generally decline together; the pulse, for the space of some few beats, could not now be felt at the same instant when the spasm was at its height. He observed to day, that he did not think he should recover.

Monday, Oct. 17. He remained much the same. The blister upon the head was removed, and a large plaster of the savine ointment substituted. Where the bandage that secured the artery had passed under the chin, there was now a sore and inflamed surface, from the flowing of the discharge from the blister. From the same cause, the conjunctiva membrane of the right eye was now very sore, painful, and inflamed. The mercurial frictions were still continued, at the rate of two drachms every two hours.

Tuesday, Oct. 18. Ever since the last purging draught was given, the bowels had been in a very disturbed condition, and still the discharges were fluid, frequent, and involuntary. From the quantity of watery fluid voided in the alvine discharges, it would appear that the fluids must have been poured into the intestines from the want of that due tone in the exhalent vessels, by which that canal, in ordinary cases, is enabled to return to its accustomed state of action, after the operation of a purgative medicine; the discharges were flatulent and fluid, without any fæcal matter, but still very copious.

He appeared now to be scarcely conscious of the manner in which his motions passed; in fact, both the alvine and urinary fluids now flowed off without his making any sign. The pulse varied from 100 to 120. He complained of very great pains in his bowels and in his head; towards the evening the pains in the abdomen were much diminished, but still he suffered from sensations of uneasiness about the forehead and over the eyes.

He had been persuaded to eat a very little piece of a light bread pudding, but it was only in the way; he felt and complained of it as a load upon his stomach the whole of the afternoon. The wound in the temple was now dried up, appearing just as if the discharge had dried on, and all further action was suspended in the part. The mercurial frictions were still continued.

Wednesday, Oct. 19. During the night, the fits had continued every ten minutes; the contents of the bowels frequently were passed involuntarily; in the evening and night closing this day, the symptoms of extreme debility in the constitution were so greatly increased, that the pulse, which in the continuance of the spasm was much oppress-

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ed, and did not beat more than 80, or even 70, in the minute, just after the return of the breathing, hurried on at the rate of 160; although before the accession of the next following fit, it had generally subsided down from 160 to 120 in the minute. The face also was now every hour assuming an aspect more and more livid in the moments of convulsion. In the fits there was at this time scarcely any perceptible vibrations in the limbs, although the body remained still as much under the influence of spasm as ever, so far was the nervous energy and muscular force exhausted. In the course of this day ten drachms more of ointment were rubbed in upon the back and thighs, making the quantity actually absorbed within five days, equal to at least several ounces of strong mercurial ointment, which never produced the least degree of excitement that could be distinctly ascertained, either in its effects upon the mouth, or even in giving firmness to the pulse. This last circumstance was noticed as curious by all who saw him.

Thursday, Oct. 20. In the night previous to this day, the fits continued, succeeding each other latterly with an interval of about twenty minutes. At six he had a fit, and after it desired some whey; about twenty minutes after he had another, and again rested. Ten minutes before seven he turned his head, and his eyes were observed to open in silence as before, and at the same moment respiration ceased. Instead of the spasm that till now had attended at this period of the attack, not any tremor could be perceived, the countenance fell, the colour left the cheeks, and death terminated his sufferings.

It was remarkable that the moment the face assumed its livid aspect, at the time of his dissolution, a sudden gush of blood ran down the side of the head, as if from the cavity of the ear; this hæmorrhage was to a considerable extent.

Examination of the Body.

On opening the head, the first remarkable appearance was an adhesion between the dura mater, pia mater, and brain. This adhesion was situated upon the fore part of the right anterior lobe of the cerebrum; it was in extent equal to a crown piece, and opposite to the anterior extremity of the falciform process. This adhesion was principally on the right side; but on a careful examination it was found to a very small extent to exist on the left side of the falciform process also.

The connection between the brain and its membranes was at this part so very firm, that in raising the dura mater

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from the brain, a portion of the cortical substance was torn up with it; this circumstance at first suggested a doubt, whether a small absces might not have existed here.

The inflammation, however, producing this appearance, was not presumed to have been of any recent date, for, notwithstanding the firmness of the union was very remarkable, yet no increase in the number of red vessels was apparent, nor any altered tinge in the general colouring of the parts, to indicate a late increase in the action of the vascular system of this organ.

Considering the general state of the blood vessels spread upon the surface of the brain in the pia mater, it might be imagined that the cerebrum was overloaded to a certain degree, although no trace of extravasation could any where be detected.

On the internal surface of the frontal bone, near the anterior termination of the falx, was found a small adherent spicula of bone. It lay in a line with the sinus, and close upon its margin. It was rather less than half an inch in length, and its elevation beyond the inner table of the cranium one-tenth of an inch; it is therefore presumed, that this process could not have conveyed any irritation or prejudice to the welfare either of the brain or its membranes. There were, however, different opinions upon this point.

Whether this spicula of bone was a fragment broken off from the inner table by external violence, or whether it might have a modification of the ossific process from diseased action of bone, seemed to be a question involved in much uncertainty. The general idea was, that of its having at some time been a detached portion of bone, afterwards becoming again united to the skull. But an objection to such supposition was the exterior surface, and indeed the surrounding parts of the same bone, bearing no visible mark of depression, fracture, or even fissure. Thus much, however, is certain, the spicula was situated immediately exterior to those adhesions that connected the membranes to the brain, while from its not possessing the least asperity at either end or on its edge, it could not be supposed that the adhesions were owing to any irritation from the presence of this minute fragment of bone.

The plexus choroides in each lateral ventricle contained a small, softish, vascular tumour about the size of a hemp seed, having the feel of a scrophulous enlarged gland. The ventricles were by no means loaded with fluid; on the con-

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trary, they contained a less proportion than is very generally found.

The pineal gland contained an earthy or calcarious matter.

All the remaining parts of the brain were attentively examined, without any further derangement in its organization being discovered.

The contents of the thorax were sound.

In the abdomen the only appearance of disease that was observed, was an increase in the vascularity of the peritoneum lining the pelvis. The hæmorrhoidal vessels spread upon the rectum were not more than commonly numerous, nor in the least disposed, as they had been externally, to the production of varicose tumours.

The temporal artery, low down, being opened, and a probe gently passed up it, made its appearance without feeling the least impediment, out at the divided orifice of the tube; the artery was now laid open, and it was ascertained that there was not the least trace of a coagulum, therefore, without a doubt, the hæmorrhage that took place at the moment when the congestion in the vessels of the head was extreme, arose from the slightly adherent sides of the previously compressed artery giving way.

From the above examination it appeared, that the principal, perhaps the only material injury in the state of the brain, consisted in the adhesion opposite the frontal bone. This might have been the result of inflammation, consequent to a blow, particularly as there was another appearance, almost proving that the bone had, at some former time, sustained a shock. The probability however of this mischief having been the result of an accidental violence, was still further strengthened by several men in the battalion recollecting, that about seven years before, while the regiment was in Ireland, he had been thrown from his horse, and received so violent a blow upon his forehead, that he for some time lay senseless, and was confined for three weeks afterwards.

It is highly curious, somewhat unaccountable, and certainly very much to be deplored, that Capt. T. should have repeatedly and constantly withheld information relating to his disorder, that might have been the means of saving a most valuable life. Every hour in the day, he was questioned whether he never had had such complaints before, but he always persevered so strenuously in denying it, that although it was still suspected, yet nothing was known, till knowledge came too late.

Letters.

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Letters had been dispatched to his family the day after he fell ill; but from the considerable distance, answers unfortunately did not arrive by the return of post, till the day following that of his dissolution. Then, and not before, a letter was received, from which the lines below are extracted.

"About three years ago, when the regiment was in Dublin, he was very ill with violent excruciating pains in his head, attended sometimes with convulsive attacks, for which he was ordered, and took, medicines for the cure of nervous and spasmodic complaints; but they increased to such a degree, that a consultation was held, and the medical gentlemen could not agree as to the cause of his complaint.

"Dr. Boyton, an eminent physician in Dublin, being of opinion that it proceeded from an old venereal taint, recommended a trial of mercury; his advice was followed, and the consequence was, that *as soon as the mercury took effect, the pain in his head, and the epileptic attacks were removed*, and I believe he has ever since, till now, been in uninterrupted health."

Mill Street, Hanover Square,
May 11, 1810.

(To be Continued.)

To Dr. SHEARMAN.

DEAR SIR,

I Send you the accompanying obstetrical Case, to dispose of in the manner you think proper. Cases of this kind are at all times interesting to the practitioner, but particularly so when attended by occurrences out of the ordinary way.

Yours, &c.

JOHN BAILEY.

Harwich, May 12, 1810.

ON the 8th of March, about seven o'clock in the evening, a labouring man of the name of English, living in the parish of Little Oakley, four miles from my residence, waited upon me, to engage my attendance for his wife at her next lying-in; which, by his account, was to

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take place about the latter end of the month next ensuing. He called at that time of night, he said, because his wife was taken in an unusual way in the course of the day.

On questioning him, I learned that the woman, whilst engaged in her domestic avocations, had suffered slightly from uterine hæmorrhage; that she was attacked with no pain, and had no idea of her labour coming on. On that account my attendance was not then required, but I was to send her some medicine if it were deemed necessary, and the next day, if my business led me into her neighbourhood, I was to give her a call. The man took home with him, Acidi sulphur. gtt. x. Tinct. opii, gtt. xxx. Tr. digit. gtt. xij. Aq. carui. ʒiß. in a draught, to be taken at bed-time, with this injunction, that if there should be a recurrence of the hæmorrhage to any extent, he was to lose no time in coming for me.

Hearing nothing from the patient, I did not see her till the next day. She informed me, that she had had no return of the discharge, but from the sensations which she felt, was apprehensive that it would return. I told her there was some reason to apprehend that it would do so, and that it was necessary, as she could not have immediate assistance in the event of its happening, to make use of every means towards its prevention. She was desired to keep herself as quiet as possible, to abstain from stimuli of every description, and to go to bed on the first appearance of the discharge. She promised to comply with these regulations.

From this day (March 9) I occasionally looked in as I passed the door, and found her busied about the concerns of her family, which consisted of five young children. On the 18th of the month she had a slight hæmorrhage. On the 22d, at five in the morning, her husband came to me, and requested my immediate attendance, as he was fearful, from the report of the women about her, that she would be dead before I could get to her. I went with as much expedition as possible, and found the woman in a very exhausted state. She was, however, capable of informing me that at four in the morning she was awakened with a pain that gave her some reason to believe labour was coming on; presently another pain followed, accompanied with a violent rushing discharge, which took away her senses: how long she continued thus, she does not know, but supposes that it did not exceed half an hour: on recovering, another discharge as copious nearly as the former came on, and then she sent her husband off for me.

She

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She said she had not obeyed the injunctions the day before, which some time back she had received from me, but had done more for her family than she ought, and was certain that had she kept still and quiet, this would not have happened. She begged, if it were possible, she might have help to have it done instantly, as her life was going away from her. I told her if her situation was such as to admit of being relieved by delivery, that it should be done; but if not, that she must wait patiently, and keep herself still until the time should arrive, when she might be assisted. This being a fit opportunity, I made an examination into the state of the os uteri; it was high up, *not* dilated, *nor* dilatable; the cervix uteri was not obliterated; in this state of things, there was nothing to be done but wait patiently. As the poor woman had disobeyed the advice she before had received, I told her now, without reserve, that if she valued her life, and the future happiness of that family to which she was so desirous of administering present comfort, she would adhere to the opinions of those better able to judge than herself; and that if she persisted in doing as she had done, death would inevitably and suddenly ensue. The violence of this attack so alarmed her, that she promised to comply to the utmost with my desires: accordingly, she was enjoined to keep to the horizontal posture for the remainder of her pregnancy; to apply topical cold over the region of the uterus; and to abstain from food heated beyond a temperature of 50°; in short, to lay in a room without a fire, and to take drinks of the simplest kind, cold.

In the afternoon of this day, I rode over to see her again; no fresh discharge beyond an oozing had taken place; the following day there was no discharge at all, and she was free from pain of every kind. From this time to the third of April, nothing material occurred. Being in the parish on the evening of this day with another midwifery patient, and having some leisure, I thought I would step to see how she was; on my way thither, her husband, who had heard of my being near, met me, and told me that he was very glad to see me, as his wife was much worse. When I got to the poor woman, which was about ten at night, I found her extremely low and faint; her pulse was quick and weak, and her situation such as to excite a good deal of apprehension for her safety; in the course of the day she had had repeated small discharges unattended by pain.

I made an examination per vaginam, and distinguished the os uteri high up, a little dilated: the presenting part of the child I could not make out in the usual mode of examination,

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amination; and as the true state of every thing within reach in cases of this kind ought to be ascertained, I introduced my hand entirely. The os uteri was dilated to about four lines in diameter, and so ductile, that it admitted of extension to any degree; immediately over this, laid, not an edge or small part, but the whole body of the placenta.

Having satisfied myself of the true nature of the case, I withdrew my hand, and informed the woman that the time she so long had wished for was at length arrived, and that before morning, I hoped she would be safe in bed.—When she had collected about her all the female assistance which was thought necessary; after laying her in a proper situation, and cheering her with a little wine, I proceeded with caution in the arduous and painful task of risking life and reputation; the confidence, however, which an extensive practice in midwifery, and the repeated occurrence of many successful cases, gave me, led me on.

The os internum would have readily receded, had it not been confined by the placenta; for some time I sought to detach it, but it was expanded over so large a surface of the uterus, that I did not accomplish it. As I apprehended that a hæmorrhage from the vessels, arising immediately out of the uterus, would be sooner felt to the mother than if from the lesion of those seated in the body of the placenta; accordingly, I passed my hand through its substance, ruptured the membranes enveloping the child, carried my arm upwards, found the feet, and withdrew a living child. A very copious hæmorrhage accompanied the birth of the child, as is usual in cases of this description.

Thus far having gone on well, I felt no anxiety about future consequences, until the continuance of the discharge directed my attention to the secundines; in five minutes after the birth of the child, a most alarming discharge took place: the pulse sunk instantly; syncope came on. I placed my hand upon the abdomen, with the view of pressing and stimulating the uterus to contraction, and was surprized to find it not at all reduced in bulk: it was a twin case, and the unfortunate mother apparently in the very arms of death. There was no time for deliberation; the same practice to be pursued under infinitely more distressing circumstances as at first; another such loss would have sunk her beyond the power of human redemption. A second time I passed my hand through the lacerated substance of the placenta, and with the greatest difficulty ruptured the membranes of the second child; the feet were laid hold of and drawn down, and another living child soon extracted.

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extracted. The next objects to be obtained, were to bring away the placenta, and to excite the uterus to contraction; the first of these objects I effected by the third introduction of the hand, and the latter by the application of topical cold and pressure. All hæmorrhage, from the moment of the extraction of the placenta, ceased. The latter part of this operation was performed whilst the mother was in a state of exhaustion, as nearly approaching to death as possible.

Having completed all that was necessary to be done as to delivery, my attention was next directed to the mother; over the surface of the abdomen, cloths wetted with cold vinegar and water were applied; to the epigastrium warmth; and as soon as it could be procured, I got down by spoonfuls a small tea-cup full of red port, previously warmed. Persevering in this manner for about half an hour, I had the indescribable pleasure of feeling a pulsation in the artery at the wrist; in half an hour more it beat distinctly; respiration became regular, and in a few minutes she faintly articulated, "I am alive, thank God."*

Thus began and ended one of the worst flooding cases that ever came within the sphere of my practice. I do not know that much practical good is to be deduced from its history, the rules for practice in cases of uterine hæmorrhage being now so well understood, but if you be of opinion that it is worthy of record, it is very much at your service.

To Dr. BRADLEY.

DEAR SIR,

IF the following observations, extracted from the medical periodical publications of this capital, and of Montpellier, can, in the slightest degree, contribute to the utility of your interesting Journal, I beg you will accept them as a mark of the sincere respect and esteem, with which I have the honour of being,

Yours, &c.

J. S. BLOUNT,

Member of the Royal College of Surgeons, London.

Paris, February 20, 1810.

Journal

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* The mother and children are at this time in perfect health.

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Journal de Medicine de Mess. Corvisart, Leroux, Boyer, &c. January 1810.

M. SAVARESSI, in his account of the medical history of the army of Naples, to which he was chief physician, observes, that during the campaign of Calabria, autumn 1806, emetics were generally hurtful in the periodical remittent fevers, and sometimes struck the patient as with sudden death. They were useful only in those cases of intermittent fever called *local* or *irritative*, a species recognized by Joseph Frank, of Vienna, and by Rubbini, of Parma. From October to December, a *diarrhœa* with *lienteria*, accompanied with emaciation and great prostration of strength, occurred to most of those who were convalescent of intermittent fever, and particularly to horsemen; it was most commonly mortal, with marasmus; bitters, tonics, excitants, glysters of g. arab. wine, bark, turpentine, bals. capivi, and friction, especially on the spine of the back, saved a few. In those who died, the lungs and abdominal viscera were found to be seriously affected, though no external symptom gave reason to suspect it. Some quartan autumnal fevers were cured by the reiterated application of blisters to the nape of the neck and between the shoulders; others by the use of gall nuts alone, or combined with *mur.* of *amm.* with calomel, or with black oxyd of iron; others by opium, given to the dose of sixteen grains daily. Dr. Picart, employed at the Hospital of Granili for the treatment of psoric patients, has observed several obstinate quartan intermittents disappear on the eruption of the itch; he also had an opportunity of observing a case of excessive head-ache, which no means whatever could alleviate; it occasioned death by the violence of the pain. On examination, the brain was found filled with hydatids.

Dr. Gaetano Monti, physician to the civil establishment in the island of Ischia, has observed that the warm baths of this island have the property of curing the largest and most inveterate exostosis from a venereal cause, provided the patient has previously undergone a mercurial treatment. It is the intention of Dr. Monti to publish some account of these waters, and their efficacy in certain diseases.

Mr. Tartas, assistant surgeon of the 15th regiment of French dragoons, gives the following case of a leech situated in the back of the throat, behind the velum pendulum

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lum palati. A soldier complained of head-ach and difficult respiration, sometimes even to suffocation; an evacuation of a small quantity of black blood from the mouth and nose then occurred, followed by a remission of all these symptoms; no fever, no fixed pain in the throat, nor any thing to be seen on examining the fauces. These symptoms, with an evacuation of blood, occurred every two hours, nor did any of the means made use of, as baths, astringent gargles, sedatives, antiphlogistic diet, &c. have any effect. The patient became daily more and more debilitated by the frequency of the hæmorrhage, loss of appetite, and loss of sleep, when, on the 16th day of these accidents, a blackish body was seen at the back part of the throat, and recognised to be a leech; an instrument was immediately sent for to extract it, but in the interval it emptied itself, and withdrew up behind the velum pendulum palati; the patient voiding as before, black blood by the nose and mouth. The throat was then occasionally examined till the animal having filled itself, was again seen to descend behind the uvula; it was then seized hold of with a pair of forceps in the left hand, and torn from its bite with the finger and thumb of the right; the patient had no return of any of the symptoms. This accident has occurred several times in Spain, where the soldiers, obliged to satisfy their thirst by stooping down and drinking with their mouths in filthy stagnant water, are liable to suck in with it these animals when very small, and which, fixing themselves to some part of the throat, may there increase in growth, and occasion symptoms similar to those above mentioned.

Section of the Symphysis Pubis. At the end of the first pregnancy, the short diameter of the brim of the pelvis was found to be rather more than 2 ¼ inches; the child being dead, the head was opened and extracted. At the end of the second pregnancy, a strong healthy leg came down; section of the symphysis proposed and put in execution. The separation of the pubis being ¼ of an inch, the extraction was attempted by the feet; separation gradually increased to 1 ¼ inch; *arms* and *shoulders* then brought down; pulsation of the umbilical cord felt; great difficulty in extracting the head; forceps used; their application took up some time; separation of the pubis increased to 2 inches; head brought out with the forceps; child dead. The pubis remained slightly separated for some days after the operation; the left side projected also more than the right; this was effaced in a few days. A right broad

broad bandage was worn round the pelvis; patient got up on the 6th day; no pain after the 12th. After the 18th, went up and down one pair of stairs daily; pain in the left groin, which was dissipated by some slight application to the part; the wound was healed in about three weeks, and in about thirty days, she left off the circular bandage round the pelvis.

The Journal of the Medical Society of Paris, for Jan. 1810, published by Dr. Sedillot, contains, 1st. the eighteenth article, on Semiology, by M. Double, M. D. containing semiological considerations on the signs deduced from the examination of the abdominal region.

2dly. Observations on the abuse of purges, by Mr. Rechou, who gives the case of a man who was reduced almost to a state of marasmus by fifteen purges administered for an ulcer of the leg. He observes, that in dropsy, after the third or fourth drastic purge, the belly swells, and the excretions of this cavity are suppressed; the excretory vessels being irritated, their membranes inflamed, and sufficiently swelled to close up the mouths of those vessels. Mr. Rechou remarked also, that in an epidemic putrid fever, all those patients recovered, in whom the application of a blister on the thigh produced a superficial gangrene on the part where it was applied.

3dly. History of the Medical Constitution of Paris for the last six months of the year 1809, by Dr. Double. He observes, that the application of an ounce of salt, powdered and mixed with the yolk of an egg, to an anthrax, frequently arrests the progress of the disease, and facilitates the separation of the eschar. He mentions a case of a small cancerous ulcer which had existed for seven or eight years, at the corner of the mouth, spreading over one side of the face, from the eye to the neck, in the course of one night, and the patient died at eight in the morning; a young cat, allowed to approach this dreadful ulcer, died in a few minutes after.

4thly. A review of books.

Annales Chimiques de Montpellier, December 1809, formerly published under the title of Annales de la Societe de Medicine de Montpellier. 1st. 5th. and last paper on researches into the phænomena which announce, or which prove, malignity in acute diseases, by Dr. Baumes, Professor of Medicine at Montpellier.

2d. A case of constipation of the bowels, from a separation

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ration of the recti muscles to the distance of three inches; the four fingers could be placed between them. The patient only went to stool once every six days; the evacuations were bloody, accompanied with excessive pain and copious eructations; a bandage round the abdomen effected a cure.

3d. The white oxidule of Bismuth is advised as a remedy in cases of cramps or spasmodic affection of the stomach, from a quarter of a grain to two grains once or more times a day. The following preparation is also recommended as a specific for the same complaint; Corall. cors. ʒv. Aloes sobot. gr. iiij, a pinch of wormwood leaves, boil in four ounces of water; let it infuse for ten minutes, strain and take the whole at the beginning of the attack, when the stomach is empty.

4th. Four ounces of a saturated infusion of the dry leaves of the Lamium Album, taken three times a day has been given with success in cases of *fluor albus*; its use must be continued for three or four weeks.

5th. Four cases of dropsy *(ascites)* out of five were cured by a vapour bath. Boiling water in a tub; eight or ten handfuls of ants, with the sand in which they are found thrown into it; the patient is then placed over the tub, and so covered, that the whole of the body, except the head, is exposed to the vapour of the bath; perspiration, and a copious flow of urine are the result.

6th. Dr. Weber attributes to the antiphlogistic means used after the operation for inguinal hernia, the frequent non-success of this operation. In those cases where no accident complicated the disease, he recommends a stimulating comforting treatment. Of six patients operated on by him, and so treated, five were cured

7th. *Iritis*, inflammation of part of the eye, with pain and epiphora seen to occur frequently after the operation for cataract, has been successfuly treated by hyoscyamus, both internally and externally, one grain given occasionally, and a few drops of a solution of one drachm in an ounce of water, introduced between the eye-lids every four hours.

8th. Itching of the parts of generation and anus, successfully treated by washing the parts with a solution of sublimate.

9th. Dr. Ritter gives a case of those cured by injecting an alkaline solution into the bladder, and by drinking the same preparation. These last five articles are given as copied from some foreign Journal, which is not named.

On

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On the Torpidity of Animals. By BENJAMIN SMITH BARTON, M. D. *of Philadelphia.*

[Extracted from the Philosophical Magazine.]

I Lately purchased, and have just finished the reading of, "An Essay on the Torpidity of Animals, by Henry Reeve, M. D." The work has afforded me much amusement, and some instruction; and may, doubtless, be read with great satisfaction and advantage by the younger class of naturalists. It is, however, I think, less replete with new facts and experiments, and with original and enlarged views of the nature and phænomena of TORPID LIFE, than might have been expected, considering the respectable author's opportunities of acquiring information, and the length of time that he has had the subject under his consideration.

Having myself, for several years, been engaged in inquiries relative to the same subject, in various classes of animals, but especially in the Mammalia, the Birds, and the Reptilia (*Amphibia* of Linnæus,) I hope to be able, at no very distant period, to publish the full result of my researches and experiments. I shall then, with that candour, which, I trust, will never forsake me in my inquiries as a naturalist, point out some of the errors (as I now conceive them to be) of Dr. Reeve's work; and, in particulars, I shall state, at length, the facts, the actual experiments, and the observations, which compel me to differ from him on some very material questions. At present, I have no other object in view, than to draw your attention, and that of your philosophical readers, to that part of Dr. Reeve's *Essay* which relates to the real or supposed torpidity of birds. This part of his subject, the intelligent author does not seem to have examined with his accustomed ability.

In treating of the "Migration of Birds, Dr. Reeve has the following words: "Here a curious question arises respecting the disappearance of birds. It is singular that this subject should still admit of doubt, when it seems so easy to be decided; yet every month we see queries and answers about the migration of swallows, and every year our curiosity is tempted to be amused with marvellous histories of a party of these birds diving under water in some remote quarter of America. No species of birds, except the swallow, the cuckow, and the woodcock, have been supposed to remain torpid during the winter months. And what is the evidence in favour of so strange and monstrous a suppo-

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a supposition? Nothing but the most vague testimonies, and histories repugnant to reason and experience."*

It appears somewhat surprising to me, that an author who has so long had the subject of the torpidity of animals under his consideration, should have hazarded the assertion contained in the preceding paragraph. Dr. Reeve has, certainly, read of other birds, besides the swallow, the cuckow, and the woodcock, which are said to have been found in a torpid state. And ought he not to have *mentioned* these birds?

In my *Fragments of the Natural History of Pennsylvania*, which Dr. Reeve, if I do not mistake, has seen, for he has referred to the work in his Inaugural Dissertation published in 1803, I have mentioned the common humming-bird *(trochilus colubris)* as one of those American birds which do occasionally become torpid. I have particular reasons for quoting the passage, as it occurs in the *Fragments* "I have not been able to learn, that the humming-bird winters in any, not even in the warmest parts of the United States. I cannot hesitate to consider it as a bird of passage. A gentleman, however, whose name I do not recollect, wrote a little paper to prove, that these birds continue with us all the winter: why? because one of them was, one frosty day, in the month of October, found a good deal benumbed in a church, in some part of New England, I think in Connecticut."†

In the same work, speaking of the *caprimulgus virginianus*, or Whip-poor-Will of the Americans, I have said: "I have been informed, that some of these birds have been found in a torpid state, in hollow trees, in New-Jersey. But I cannot entirely depend upon the fact; and I have little hesitation in saying, that this bird, as well as the swallows, to which it is allied, is a bird of passage."‡

Here, then, there are two American birds, besides those enumerated by Dr. Reeve, which are supposed, by some persons, to become torpid in the winter season. Nor do these complete the list. It is the opinion of many well-informed persons, in the United States, (but I by no means vouch for the verity of the story,) that the Virginia corn-rake, or rail, *(rallus virginianus,)* becomes torpid, and remains

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* An Essay, &c. section ii. pages 39, 40.

† Fragments of the Natural History of Pennsylvania, Part First. Appendix I. pages 18 and 19. Philadelphia, 1799.

‡ Fragments, &c. Appendix I. page 18.

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remains among the mud and grasses of our meadows, &c. during the winter season. It is asserted, by many other persons, that whole flocks of the Carolina parrot, or parakeet, *(psittacus carolinensis,)* continue in a torpid state, in the hollows of trees, in the state of North Carolina, and in some other parts of the American Union. *I believe entire dependence may be placed upon this statement;* though it would not be difficult to show, that these birds are often seen abroad, and pretty active, when the ground is whitened by snow. I could mention not a few other birds, the torpid state of which has been spoken of by naturalists and others; and these birds I shall mention in my "Facts, Experiments, and Observations, relative to the Torpidity of Animals."

But "what" (says Dr. Reeve) "is the evidence in favour of so strange and monstrous a supposition? Nothing but the most vague testimonies, and histories repugnant to reason and experience."

This, surely, is not the proper language to be employed in the investigation and discussion of physiological questions. Authorities are facts in natural, as well as in civil, history. And in favour of the torpidity of some of the birds which I have mentioned, the authorities are, sometimes at least, highly respectable: nor are they few in number. In regard to the swallows, I shall say but little at present. I have, at this time, in the press, a memoir on the migration and torpidity of these birds. I am confident that I shall be able to convince every candid philosopher, that great numbers of swallows, of different species, do *occasionally* pass into a state of torpidity, more or less profound, not merely "in some remote quarter of America," but in the vicinity of our capital cities, where there are some men of genuine observation and inquiry, and who are as little propense to believe the marvellous in natural history, as any philosophers elsewhere.

I do not suppose, that *all* the swallows of North America become torpid. It is my present opinion, and it was my opinion when I published the "Fragments" in 1799, that the swallows, *in general,* are migratory birds.* But subsequent and very extensive inquiries have convinced me, that the instances of torpid swallows are much more frequent than I formerly supposed they were; and that there

* See Fragments, &c. Appendix I. page 16. See, also, Introduction to this work, pages xii and xiii. § xxiv, xxv, xxvi.

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there are two species of the genus *Hirundo*, which are peculiarly disposed to pass the brumal season in the cavities of rocks, in the hollows of trees, and in other similar situations, where they have often been found in a *soporose* state. These species are the *hirundo riparia*, or sand-swallow, commonly called, in the United States, bank-swallow and bank-martin; and the *hirundo pelasgia*, or aculeated swallow, which we call chimney-bird and chimney-swallow. *There is no fact in ornithology better established, than the fact of the occasional torpidity of these two species of Hirundo.*

I say nothing of the torpidity of swallows, "under water." But I do not wholly deny *this* fact. And I take much pleasure in referring Dr. Reeve to a short paper, in the *Transactions of the American Philosophical Society*, vol. vi. part i. relative to the discovery of a torpid swallow under a quantity of mud and leaves. The author of that paper was a most worthy and respectable man; and a man so religiously attached to truth, that I believe him to have been incapable of uttering a falsehood. He was, moreover, a man of nice observation, and of a philosophical turn of mind.

I do not wish to urge this part of the swallow's history any further. I have nothing to say in support of the "swallow song." But when, in page 44, Dr. Reeve asserts, that no swallows "were ever found in all the rivers and lakes of England, Wales, Ireland, Scotland, or Switzerland, although fishermen are constantly employed on these their supposed hiding places," does he mean to say, that it has never been asserted by any of his countrymen, that swallows have been found torpid, under water, *in England?* Swallows are said to have been found torpid "in the river Thames;" and the fact seems to have been credited by some illustrious Englishmen in the 17th century; and among others, if I do not mistake, by the immortal William Harvey.*

But

* In Dr. Birch's *History of the Royal Society*, vol. iv. there are some curious notices about swallows. The following may not be deemed wholly unworthy of Dr. Reeve's attention. "Sir John Hoskyns proposed, that it might be duly examined, what becomes of the swallows, and in what state they are during the winter. In answer to which Mr. Henshaw affirmed, that the chancellor of Denmark told him, as an undoubted truth, that in Iceland, there had been taken out of the ice swallows, which being afterwards brought into a warm stove, recovered and flew about the room."—Mr. Henshaw observed, "that he had an account like the former concern-

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But I will take my leave of the swallows. Since I published my *Fragments*, I have obtained much information relative to the torpidity of the humming-bird. I have hinted at this subject, and have, indeed, most pointedly admitted the fact, in my letter to Mons. la Cepede, published in your Philosophical Magazine. I am now fully persuaded, that instances of the torpidity of the *trochilus* are by no means uncommon in the United States: and I regret my having treated with so little respect, the opinion of the Connecticut gentleman already alluded to. It is certain, at least, that the *trochilus*, like the generality of the swallows, is very impatient of cold; and that it sometimes even in our houses, very suddenly passes into a profound slumber, from which, however, it awakes, to enjoy all the privileges of its life. I say this is *certain*. And this, so far as his sentiments may be collected from his *Essay*, is more than Dr. Reeve is willing to admit of *any* species in the great class of birds.

The fact of the torpidity of the *trochilus* was not unknown above two centuries ago. It is related by the Spanish historians Herrera, Ximenes, and several others, tho' it must be confessed that these writers have mixed with the truth, some *fable*. I have lately conversed with an intelligent gentleman, who was born, and has long resided, in the kingdom of Mexico. He assures me, that the fact of the torpidity of the *trochilus* is known to every one in that country, and the adjacent provinces. He added, that he had himself seen one of these little birds in its brumal sleep, in a tree. I shall discuss this subject at length, and shall illustrate it by actual experiments, in my work on the torpid state of animals, to which I have already alluded. In the mean while, I flatter myself that the following lines, a part of which immediately relates to the *somnus* of the *trochilus*, will not be wholly unacceptable to some

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ing swallows from our watermen, viz. that they have found them in the river Thames; and that towards the end of the year they assemble in great numbers on the little islands of the river, and then submerge themselves in the water."—"Upon reading the minutes of the last meeting, Mr. Henshaw remarked, that Dr. Harvey had considered the state of swallows in the winter, and had dissected some of them, which had been found under water, and could not observe that there was either warmth or motion in them."—"Mr. Chetwynd, of Ingstree, being present (at a meeting of the Royal Society), observed, that during the time that the swallows are laid up for the winter, they moult, and return in the spring with all new feathers." The History of the Royal Society of London, &c. &c. By Thomas Birch, D.D. Secretary to the Royal Society, vol. iv. pages 533, 534, 537.

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some of your readers. The author is Raphael Landivar, a native of Guatimala; and his poem, entitled *Rusticatio Mexicana*, in fifteen books, besides an Appendix, in verse also, deserves to be much better known than it appears to be. It is, indeed, well worthy of an English translation; and I sincerely wish that the elegant Mr. Sotheby, whose translation of the *Georgics* of Virgil has so deservedly procured him a high reputation, could be induced to undertake the task. My copy of Landaver's work, which is, I believe, a very rare one, would be at his service. The public pulse might be tried by the publication of a version of one or two of the books.

In his 13th book the author treats of birds. And here it is that he speaks of the humming-bird, its manners, its sleep, &c.

"Nil tamen exiguo novit præstantius orbis
Colibrio dulcis spoliato murmure vocis,*
Sed claro tenues pennâ radiante per artus.
Exiguum corpus, forsan non police majus,
(Quod rostro natura parens munivit acuto
Atque artus ferme totos æquante volucris.)
Induit aurato viridantes lumine plumas,
Et varios miscet tractos a sole colores.
Ille volat rapidum Zephyrum superante volatu,
Et raucum pennâ tollit stridente susurrum.
Roscida si vero fragranti educere flore
Mella velit rostro, viresque reducere membris,
(Quippe aliâ quacumque negat se pascere mensâ)
Sistitur in medio concussis aëre pennis,
Nectareum donec tereti trahat ore liquorem.
Ast adeo prompte subtiles concutit alas,
Ut vigiles fugiant oculos, ludantque citatæ;
Suspensamque putes volucrem super æthera filo.
Sin autem sylvis borealis bruma propinquet,
Plusque vagus solito frigescat Jupiter imbre,
Frigida præcipiti linquit *Colibrius* arva
Nostra fugâ, linquitque levi viridaria pennâ,
Et longum montis nigris absconditus umbris
Indulget placido, ceu Progne arguta, sopori,
Dum luces Aries stellatis noctibus æquet,
Verque novum pratis antiquum reddat hororem."

Rusticatio Mexicana, lib. xiii. v. 217—242.

* Avicula hæc *Colibri*, in America Meridionali, in Septentrionali vero *Chupa-mirto* dicitur." Note by Landivar.

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All this, Dr. Reeve will perhaps say, may do very well in poetry: but something more positive on the subject of the "placidus sopor" of the colibri is required. Some facts, and therefore something more positive, I have already mentioned: and many additional facts, with experiments, I promise to give in another place. At present I will only add, that Mr. Landivar mentions the torpidity of the humming-bird, not as a fable, but as an established truth. For in the short *Monitum* prefixed to his interesting work he says, "In hoc autem opusculo nullus erit fictioni locus, eam si excipias, quæ ad lacum Mexicanum canentes poetas inducit. Quæ vidi refero, quæque mihi testes oculati, cæteroquin veracissimi, retulere. Præterea curæ mihi fuit oculatorum testium auctoritate subscripta, quæ rariora sunt, confirmare."

Philadelphia, Nov. 1, 1809.

CRITICAL ANALYSIS

OF THE

RECENT PUBLICATIONS

IN THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

A Treatise on Cheltenham Waters, and Bilious Diseases; second Edition, newly arranged, with numerous Additions, and Two Plates. By THOMAS JAMESON, M. D. of the Colleges of Physicians in London and Edinburgh; formerly Physician and Lecturer at the Finsbury Dispensary, London; now Resident Physician at Cheltenham. 8vo. pp. 219.

WHEN a physician resident in a watering place sits down to write a Treatise upon the Medicinal Waters of that place, we may fairly anticipate a recommendation of their virtues in the cure of various diseases; for unless a person so circumstanced, could speak well of them, he would undoubtedly be silent; even the author's declaration, that his "having *now* no connection with any well, nor any predilection for one of the wells more than another," does not completely convince us that "his opinion concerning these waters *must* be completely unbiased by any interested motives," for the resort of patients to any of the wells, is, we presume, a source of emolument to him, more especially if they are impressed with a due sense of the importance of the advice Dr. Jameson has given them in the end of his preface.

"Prudence

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"Prudence requires that invalids should always be directed, before they drink the water, whether they are to pursue the laxative or purging plan, and what kind of water is best suited to their case. And after they have drank them a certain time, it would be proper to ascertain with accuracy, whether changes have not taken place in their constitution, or their disease, to interdict the further use of the waters."

Whether *a popular work* on the medical qualities of Cheltenham waters, and containing an enumeration of diseases to which they are adapted, was requisite, or how far it may be useful, will admit of some doubt; for there are few patients at a distance, whose circumstances will enable them to avail themselves of the benefit of these waters, who do not employ some medical practitioner, whose advice as to the waters being adapted to their disease, must at least be equal to what they can obtain from any popular treatise whatever. If Dr. J. claims the right of prescribing to patients *how* to drink the waters when at the springs, he should certainly leave to other practitioners the exercise of their judgment when to send them thither. Whatever information Dr. J. can impart to the medical profession on this subject, whether to correct any erroneous statement they may have received of the analysis of these springs, or to add to the knowledge of their effects on the human system, and thereby to guide their judgment in prescribing them, his brethren would be thankful for; and as we can only consider his treatise valuable in proportion as it effects either of these objects, we shall proceed to extract briefly the substance of his experience on these points.

The author divides the springs of this town into two classes, the aperient saline wells, and the simple carbonated chalybeate wells; these are again subdivided according to the degree of impregnation and the relative proportion of their ingredients; "they all supply waters with one leading feature, although there is some variety of character in every one of them." It is unnecessary to enter into minute particulars on this head, since the author assents to the accuracy of those analyses which have already been published; the last of which, Mr. Accum's, he quotes for the contents of some of the waters. This part of the work we cannot abridge, and have nothing to object to, since the experiments are detailed with accuracy, and the results given faithfully; it will be sufficient to state, that generally, the saline properties are owing to the solution of sulphate of magnesia and sulphate of soda, to which is frequently added a considerable proportion of muriate of soda, "but the operation on the bowels is nearly the same in all." They almost all possess more or less iron, and some contain it in large proportion. "Sulphurated hydrogen gas is also contained in most of them, notwithstanding they hold iron in solution." After the description of the wells, and an account of their chemical and medical qualities, we have a chapter on the modes of administering the different kinds of waters. This contains some general directions which may

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be useful, as to the season of the year in which they are most efficacious, the time of day for drinking them, the dose and temperature, the duration of the course, and the mode of discontinuing their use; upon all of these heads, we must refer our readers to the work itself, and pass over to the author's account of diseases, wherein the waters are indicated, and those wherein they are prejudicial, as affording us an opportunity of examining some of his opinions, and ascertaining how far they are agreeable to the present generally received doctrines of medicine, or are supported by experience. This, however, cannot be done without some difficulty, for in general his propositions are stated so loosely, and his terms are employed so inaccurately, that we are not always certain we exactly understand the author in the sense he means to express himself. Thus, for instance, when he tells us that a gradual and constant application of intense heat to the human body induces *relaxation*, and that iron *braces* the stomach, and is useful in diseases which require a *bracing* remedy, we are at first apprehensive that he is estimating the chemical operation of substances on the *dead* animal fibre, unmindful of the laws of organic life, instead of reporting the changes he has observed to be produced in health or disease by these different agents. We shall, notwithstanding, endeavour to separate facts from hypotheses, and inform our readers of the most valuable results of the author's experience.

According to him, then, the principal diseases which require a course of purging waters, are the following:

"Inflamed and schirrous liver or spleen. Torpid action of the liver. Bilious state of the stomach. Habitual costiveness. Hypochondriacal complaints. Sick head-ach with bilious vomitings. Some kinds of bilious purgings. Jaundice and biliary concretions. Depraved appetite and indigestion. Pimply eruptions, called scurvies. Scaly, and scurfy states of the skin. Inflammations of the skin of the face. Exudations, and watery humours of the skin. Some kinds of scrofulous tumours. Inflammations of the eyes and eyelids. Inflamed ulcers, and discharges of the legs. Some stages of rheumatism and gout. Inflammatory asthma. Female diseases. Piles and fistula. Diseases of the kidneys, gravel, and stone. Intestinal worms."

It is impossible to reduce this enumeration to any nosological arrangement whatever, many of these *diseases* being merely symptoms, and some of their names unintelligible. What the author means by a bilious state of the stomach, we are at a loss to ascertain; in vain we search the nosological synopses, we no where find such a disease; we are equally unsuccessful in our examination of practical writers, in no history of any disease can we find such a symptom mentioned. It is then founded, perhaps, upon some fanciful hypothesis; we know, indeed, that *bilious diseases* is now the popular phrase, and has entirely superseded *nervous complaints* among fashionable valetudinarians; but we think too highly of Dr. J. to imagine he would countenance or propagate unfounded popu-

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lar errors, or wish to ingratiate himself into the good graces of his patients, by adopting their nonsensical whims; a trick of charlatanry unworthy a man of character, and a member of so liberal a profession as medicine. The few remarks that are given by the author, on each of these states of disease, are not very important, and we would rather confide in his experience of the utility of Cheltenham waters in all of them, than enter into a refutation of the hypotheses upon which he explains their action. The purging waters are contraindicated in cases of debility from old age, and in some diseases, the list of which is thus introduced by the author.

"I *consider* four or five motions a day, produced by any kind of purging remedy for eight days together, to lessen the lymphatic part of the blood as much as the loss of half a pint of blood from the arm would do in the same space of time. The impropriety, *therefore*, of using purging saline waters in the following diseases, must be perfectly obvious:

"Nervous diseases. Palsies. Consumptions. Hæmorrhages. Dropsies. Fevers, and very acute diseases."

We do not admit the conclusion to be a necessary induction from the premises; and it is not obvious to us, but that in some states of these diseases, the purging waters may be used with advantage; and notwithstanding consumption is included in this list, "the author has found that it may be safely employed in some cases of tuberculated lungs, and is extremely useful in many cases of dry cough, in promoting expectoration, by dilution, and keeping the body cool by its saline impregnation."

Their use is ambiguous, Dr. Jameson says, in affections of the head, not because purging is not very serviceable in most diseases of the head, but on account of over distension of the stomach produced by a large quantity of water, as our author justly remarks: to obviate this, he recommends the purgative effect to be quickened by an additional quantity of salts, and asserts that Cheltenham water, when it purges, has a tendency *to cool the brain*, and to lessen plethora in the head."

Steel waters are indicated in chronic diseases accompanied with debility, and unattended with feverish symptoms; they may be alternated with the purging waters, or even drank on the same day with advantage; they are contraindicated in inflammatory diseases, visceral obstructions, determinations of blood to the head, in dropsies, and in calculous diseases.

"All carbonated chalybeate waters are more invigorating in proportion to the iron they contain, than is observable from any artificial preparation of the metal. An eighth part of a grain of iron, contained in a dose of steel water, having more salutary effects on the constitution, than two or three grains of the oxid of iron in powder. The reason is, the acid of the stomach dissolves but a small part of ferruginous powder, and the remaining portion passes downwards without entering the circulation, and thereby gives the alvine evacuations a dark colour. Whereas repeated

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doses of chalybeate waters do not depend upon the fluids of the stomach for solution, and seldom produce the same effects upon the contents of the alimentary canal."

This *reason* does not appear to us perfectly satisfactory, although we readily admit the fact; it is probable, that out of two or three grains of oxid of iron, $\frac{1}{8}$ of a grain is dissolved in the stomach; the difference, therefore, depends upon some other circumstance, and may be thus accounted for; the iron, when not largely diluted, acts as a stimulus upon the *stomach* itself, and produces indirect debility, which counteracts the tonic effect of the metal; whereas, by large dilution, the tonic effect is secured without the stimulant one, as is exemplified in the use of port wine in hæmorrhage; given alone, it stimulates the vessels and increases the hæmorrhage; when mixed with water, it acts as a restringent, and checks the bleeding. In practice, accordingly, we find much more beneficial effects to arise from exhibiting the tincture of the salts of iron in a large dose of water, than when a single wine glass full only is employed; at the same time we must remember that the superior virtues of the chalybeate waters drank at the wells, depend in no inconsiderable degree upon several concomitant circumstances affecting the patient, as company, amusement, &c.

We come now to what the Author considers a very important part of his volume, for in his Preface he thus speaks of it.

"The chapter on bilious diseases has been greatly enlarged, from the many opportunities the author has lately had of observing the character they generally assume in Britain. It was not without regret, that he found himself under the necessity of treating their history more medically than is usual in popular works, but he could not neglect the favourable opportunity of communicating his sentiments upon a subject, which has become of the utmost importance in modern times."

What has rendered this subject of more importance in modern times we do not know; that bilious diseases are said to be now more prevalent, arises chiefly from the vague employment of the term, and we are sorry that the author has not been more accurate in his definitions, as this part was intended for medical Readers. In the first paragraph we are told that half the invalids who visit Cheltenham are affected with *bilious* disorders; in the second, that *biliary* diseases spontaneously divide themselves into two principal classes. These are not convertible terms, although our author has so employed them; biliary diseases, strictly speaking, mean those which depend upon an altered structure or deranged functions in the liver or its appendages; bilious diseases, those in which bile is contained in some of the secretions or excretions of the body. Cholera in its mildest and most simple state being merely an increased flow of bile into the intestines, in which neither the structure nor functions of the liver are *impaired*, is an example of the latter; torpor or paralysis of the liver, which is here said to be

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one of the most frequent *bilious* diseases met with in this country, is undoubtedly a *biliary* disease, and a fair instance of the former.

We proceed then to give a short account of the different states of these diseases, in which Cheltenham waters are likely to prove serviceable, without following our author minutely through his arrangements or descriptions, which are neither scientific nor satisfactory. Chronic inflammation of the liver, torpor, or paralysis of the liver, and congestion of fluids in that organ, whether sanguineous, serous or lymphatic, are all states in which these waters are indicated; to the use of which shoul l be joined exercise in the open air to invigorate the habit, which will promote the absorption of fluid, or indurated matter in the substance of the organ. But the most numerous class of diseases in which Cheltenham waters may be used with advantage, is what our author has denominated "diseases with a deranged state of the bile," comprehending such as arise either from the superabundace, deficiency, obstruction, or deficiency of that fluid. As to the general causes of these various affections, we are informed, that "most bilious diseases proceed from colonial heat, and when generated in cold climates, they arise from a peculiar temperament of body, from getting cold, from intemperance in eating and drinking, and from irregular modes of life. But they are most generally derived from the burning heat of the solar rays, or the liquid fire of the still, which is the reason that men are more frequently affected with these complaints than women."

The theory of the operation of these causes is thus set forth:

"A gradual and constant application of intense heat to the human body, imperceptibly changes the state of its stamina, by inducing relaxation and debility, which predispose the habit to putrid and bilious diseases. Thus a greater external circulation of blood, and increased discharge from the cuticular pores, are general conditions of the system in hot climates; observable by an increased sensibility of the skin to external cold, and by a constant moist state of the surface, requiring change of linen once or twice a day. This exterior circulation exhausts and weakens the interior vessels of the body, from which vital energy and strength are chiefly derived. While at the same time, the increased circulation of blood in the liver, from heat, augments the secretion of bile, by which means it is transmitted more copiously to the alimentary organs in a thin and crude state, so as to irritate them, particularly in their excited state. But tropical diseases seldom occur, even in the predisposed state of the body, until a morbid irritability, or an erysipelatous inflammation has taken place in the internal membranes of the chylopoetic viscera, which subjects them to receive supernatural stimulus from their own fluid, in a manner similar to what happens in catarrh, with the mucous membrane of the throat, when inflamed; the disease is increased and propagated by the irritation it receives from its own secretion, which differs only from its natural state in quantity and increased tenuity."

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As to their effects upon the system at large, we learn, that "So great is the influence of the liver over the whole system, that there is scarcely a part which does not sympathize with its affections, and many complaints referred to other organs, take origin in this gland. Gout, apoplexy, *hypochondria*, and piles, are frequently associated with diseased liver; and from the necessity of the biliary secretion for the healthy actions of the intestines and stomach, the hepatic and alimentary organs reciprocally partake of each other's diseases."

The last part of the chapter contains some remarks upon vitiated bile, and also states the principles upon which the author explains the beneficial effects of the Cheltenham saline waters. —"Without entering into the controversy, concerning bile as a cause or symptom of diseases, we can freely state our complete evidence of its existence in a vitiated state, in a great number of instances. In dyspepsia, bile is often thrown up with the contents of the stomach in a highly acrid and corrosive state. Bile is vomited in cholera morbus evidently diseased, and sometimes with as great rapidity as if a patient had swallowed poison. Copious discharges of fœtid and putrid bile are not uncommon occurrences in fevers of the putrid, bilious, and remittent kinds, as well as in the plague, colics, diarrhœa, and dysentery.

"The opinion of the ancients concerning the destructive properties of black bile, was greatly confirmed by the utility of purgative medicines in the cure of malignant diseases; and there is no doubt but the saline waters of Cheltenham are of great service in removing acrid and vitiated bile from the alimentary canal, while at the same time they increase the demand of the system for new matter, to secrete healthier fluids. Upon these principles, we explain many of their excellent effects in most bilious diseases of a chronic nature."

The remainder of the volume is occupied in the description of the baths and different kinds of bathing at Cheltenham; this part of it, although interesting to the visitor who resorts thither, affords nothing on which we can offer any remark. We can only say in conclusion, that we wish the volume had been written with more care, that its language had been less incorrect, and freed from its numerous orthographical and grammatical errors, especially as it was intended for the general Reader, who from this specimen must form rather an indifferent opinion of the literary acquirements of the members of the medical profession in general.

Tabular Views of the Anatomy of the Human Body. By HENRY H. ASHFORD, M. D. Member of the Royal College of Surgeons in London, and Assistant Surgeon in the Royal Artillery. London, printed for the Author.

THE Author has not given us a word of Preface or Introduction explanatory of his intentions in publishing these tabular views, nor informed us for whose use they are principally designed. Convinced as we are of the absolute necessity of frequent and various dissection

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dissection to constitute the practical anatomist, and even to impart to the medical student that portion of anatomical knowledge it is important to him to acquire, we should not think favorably of any expedient that might induce young men to forego the labours of the dissecting room, yet we do not consider these tables as ill adapted to the use of those practitioners, who having left the schools of science, require some good compendium which they may occasionally consult, and which will recal to their minds in the order they were acquired, those minutiæ of anatomy which so readily slip from the memories of persons who are no longer busily engaged in the actual prosecution of anatomical pursuits.

Looking upon it, therefore, in this point of view, we consider the work before us as a well executed plan, the subjects being well arranged, and the descriptions clear, yet concise. It consists of twenty-three Tables, of which, six are taken up in the description of the bones, two for that of the joints and ligaments, four are appropriated to the muscles; one to the brain and its membranes, two to the nerves, and as many to the organs of sense. The arteries are comprised in two, the veins and lymphatics in one. The viscera occupy two tables; and the work is completed by an account of the organs of generation and urine in the last table. In addition to the utility it will be of to the older practitioner, this book may serve as a complete vade mecum for the dissector, and an useful auxiliary to the candidate for collegiate honours. In describing the muscles, their compound actions are not noticed, and, perhaps, it would have been inconsistent with the intention of an elementary work to have done so. The author appears to have adhered to the usual arrangement, and has not adopted the peculiar one of Dr. Barclay, which is founded entirely upon the consideration of their combined action. However valuable the arrangement of this latter author may be to the physiologist, the method of Albinus and Innes must be acknowledged to offer greater facilities to the mere anatomical student, and has therefore been judiciously employed in the present instance.

Although we are satisfied of the strict propriety of the title of this work, consisting of tables, which give by a single inspection, every circumstance pertaining to the subject described, yet we have some doubt whether it may not occasionally mislead; the term *Tables* being so familiar to the ear of the anatomical student, as conveying an idea of engraved representations, accompanied with explanatory references, nothing of which kind is to be found here, every Table containing letter-press only, but which being of a small type, comprises a great deal of information in the smallest possible compass. Upon the whole, the Tabular Views may be considered as a valuable digest of anatomical knowledge, which while they will facilitate the attainment of that science, will not, we hope, supersede that more important source of improvement, practical dissection, by which alone an accurate acquaintance with the structure and functions of the human body can be acquired.

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Edinburgh Journal. No. xxii.

(Concluded from our last, pp. 428—432.)

The author concludes, that the indisposition of the sore itself to heal and the derangement of the general system, arise from the application of the pus secreted by the vessels of the ulcer to the surface of the ulcer itself. Many difficulties oppose themselves to this opinion. What first occasioned the vessels to secrete pus capable of producing these effects upon the surface of the ulcer? and how can the mere removal of that pus, when secreted, alter the disposition or action of those vessels? Some change must take place in the action of the secreting parts, before any alteration can be produced in the matter secreted; this is surely not to be effected by absorbing the pus after it is secreted. The pouring out this noxious matter must have been *preceded* by a certain state or action of the vessels, and as this state was not originally produced by the secreted pus, it may, for ought we can say, be kept up independent of it. We can readily understand that the inflammatory state of the vessels of the part being removed by poultices and fomentations, they may assume a healthy action, and pour out pus devoid of irritating qualities. We can as easily comprehend that if the unhealthy action of the secreting vessels depends upon a morbid constitutional affection, a removal of this may restore the healthy action to the vessels of the part, and the same beneficial consequences may follow. That a state of disease may be increased and extended, by suffering an irritating extraneous substance to remain long on the part is probable, and we would not be understood as objecting to its removal, although we cannot attach the importance to this circumstance which the author has done. "In some cases," he says, "where the constitution was greatly affected, I attended to the local disease only; yet, as a general practice, I should hold it good to pay a proper attention to the constitutional derangement." This general practice seems to be inconsistent with the conclusion he has drawn in a former part of the paper, "that the constitution is affected from the local disease; and as the local disease assumes a healthy action, the constitution will resume its original vigour." We certainly are not convinced by this paper, that any ulcer is to be *cured* by absorbing upon lint the pus secreted from it; the utmost we can allow to this management is, that it may occasionally protect the surrounding sound parts from acrimonious substances, which might otherwise irritate and inflame them. The author himself does not in practice *entirely rely* upon the dry lint, as over it he applied a linen, kept wet with an evaporating lotion, *to allay the surrounding inflammation.*

Article 7.—*Observations on Elephantiasis.* By Arthur Edmondston, M. D. Fellow of the Royal College of Surgeons, Edinburgh.

The Edinburgh Journal, No. xx, for October, 1809, vol. 5, p. 409.

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499, contains a letter from Thomas Christie, Esq Medical Superintendant General, to the Editor of the Ceylon Gazette. In this paper, the author has introduced the following note. "Lepra Arabum, or Elephantiasis of the Greeks; for a good description of which, as it appears in Ceylon, see Dr. Adams's Treatise on Morbid Poisons."

After the account of one author, who had examined elephantiasis in a lazar-house, containing thirty subjects in different stages of the disease, and made a report on the subject to the Portuguese government, and after finding this report confirmed by the Medical Superintendant General of Ceylon, from his own observations in a lazar-house in that island, we should not have expected to read that "elephantiasis is known only by name;" nor should we have looked for an accurate history of it so far north as Scotland. However, the paper before us contains many *decisive* remarks on that disease, and also on trichoma and frambœsia; and although Dr. Cullen in his nosology, very modestly informs his readers, that he had never seen either elephantiasis, frambœsia, or trichoma, yet Dr. Edmondston, who seems familiar with them all, tells us that Cullen's description of elephantiasis is unexceptionable. It may be so, but we conceive the illustrious professor would have been better pleased to see his description supported by an official report from Madeira, confirmed by the Medical Superintendant General of Ceylon, than by one who only informs us of what he has seen in the wards of a northern hospital.

ARTICLE 8.—*Observations on the Treatment of the Sick returned from Corunna.* By B. G. B.

THE observations of this author were suggested by reading Mr. Hooper's paper in the Edinburgh Journal for October last, and apply principally to the case of Mr. Williams, detailed in that paper. He entertains little doubt of the fever being originally of an inflammatory nature, and that the brain was very powerfully affected. On this ground, he reprobates the treatment that was adopted, of committing his chance of recovery to calomel alone, for the first three days, and suffering him to remain all that time without any evacuation per anum. Had copious bleeding been instituted in the first instance, he thinks there is little doubt but it would have so far relieved the brain immediately, as to have allayed the disordered action of the stomach also, and thereby have afforded an opportunity of giving such purgatives as would still further have tended to reduce the fever.

The author highly approves of bleeding and evacuations in cases of fever, where there is great affection of the head; and he recommends, when the fever is so violent, as not to give way after three or four copious bleedings from the arm, and the strength still allows a further loss of blood, that it should be taken from the jugular vein; a practice he has found very beneficial.

"Indeed, (says he) until medical men in general are less alarmed about debility, I shall despair of ever seeing a rational treatment of either

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either fever or inflammation; for the practice of what is called throwing in bark, and giving stimulants, to obviate debility in such cases, has been hitherto so universal, and so destructive, that a more judicious practice will be many years in debt, before it shall have made a sufficient compensation to the public for the disasters of the former."

That bleeding must be highly serviceable in inflammatory affections of the brain, there can be no doubt; but until such are ascertained to be invariably the proximate cause of fever, some caution is necessary, lest we interrupt the natural progress of cure in fever by too much attention to one of its symptoms only. It may frequently, by removing the congestion of the vessels in the brain, be serviceable in obviating a source of danger during the continuance of the fever, when it may be utterly incapable of removing the fever itself. We perfectly concur with the author in the propriety of the following remark.

"Medical men, in the army more particularly, should also consider, that the subjects of fever with them are young men, and men in the greatest vigour of life, when they are more likely to be of an inflammatory habit; consequently, there should be more anxiety to counteract this at first, than to obviate debility, to which, in the first instance, there is generally the least disposition."

ARTICLE 9. — *Case of Tetanus, with Appearances on Dissection. Translated from* STOLL, *with Observations, by a Naval Surgeon.*

AFTER four days continuance of tetanic spasms and occasional attacks of epileptic convulsions, during which time nothing appears to have been done for the patient but throwing up first an oily and then an irritating injection, and giving him Epsom salts and manna, the subject of this case died. On opening him, some of the intestines, and a great portion of the mesentery, were found very red and livid, with vessels larger and more numerous than usual, which appearances the author does not know whether to attribute to inflammation, *bruise*, or congestion: the jejunum contained worms. The annotator thinks "it would be sinning against the chaste spirit of induction, to conclude from a single case, that the inflamed state of the intestines was the cause of the tetanus." The surgeon of the Naval Hospital at Barbadoes, he tells us, has, in some dissections of subjects who died of tetanus, discovered analogous appearances; he therefore adds, "but when we find the same thing to have been remarked by others, the observation becomes of more importance, and in the light of cause and effect, assumes a higher tone of credibility."

ARTICLE 10.—*On the Degree of Importance which should be attached to the Functions of the Uterus in regard to Health.* By Mr. FOGO, Newcastle.

MR. FOGO commences his paper, by informing us that he has always differed in opinion from medical writers, on the subject of the very great importance of the functions of the uterus; we expected, therefore,

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therefore, he would have communicated some powerful reasons for his doing so, and we were prepared to examine them with no little degree of attention. We meet, however, with only a few inconclusive arguments, some ineffectual attempts at wit, and some erroneous conclusions, drawn from an imperfect statement of facts. To follow him through the whole of these, would be tedious to ourselves, and uninteresting to our readers; it will be sufficient, briefly to state the philosophic manner in which he infers that the suppression of the menstrual discharge does not influence the health of the individual; that it may be a sign of ill health, but can never be a cause of it.

"The female enjoyed the best health and spirits from birth till she arrived at the age, called of puberty, suppose fifteen years. At this period, an effusion of a small quantity of blood took place from the organs of generation, and which returned, at periodical times, till she arrived at another age, say forty-five; the effusion then ceased at once, and never returned. What was the consequence? Nothing at all. Did she fall into a bad state of health? No. Did she die? No. She continued in good health for thirty years more, and died of old age. Instead of suffering any injury from the cessation of the effusion, she was happier and more comfortable without it."

Now to us it appears absurd to infer, that because the health of a female does not suffer by the non-performance of a certain function before the organ which is to perform that function is completely evolved, nor after the period designed by nature for its duration, therefore the health cannot be influenced by its due or imperfect performance during the usual time of its continuance: because she suffers no injury from the cessation of the effusion at the period nature designed it to cease, she cannot suffer any by its interruption during the time nature intended it to flow. Besides, is Mr. Fogo certain that those "who are happier and more comfortable" on its total cessation, are not precisely those who have experienced the most regular performance of it during the natural period of its continuance?

His remarks, Mr. F. tells us, were called forth by a paper in the last Number of the Edinburgh Journal, wherein the Author endeavours to show the probability of Amenorrhœa being a frequent cause of morbid affections of the lungs, in certain states of predisposition. This connexion Mr. F. denies; and as Dr. Shearman illustrated his general principles by a particular case, Mr. Fogo attempts to explain the phenomena of that case by different and opposite principles. In doing this it was surely incumbent upon Mr. F. to admit the statement given in that paper, and to ground his reasonings upon the same data. Now Dr. S. distinctly says, "a young woman, *in pretty good health*, experienced an obstruction of the menses in *consequence of cold; from this time* her health gradually declined, she became languid and weak, &c." It suits Mr. F. however, to invert the order of occurrence of these symptoms, and

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and because the mesenteric glands were found diseased after death, to infer a "probability next to a certainty, that disease in these most indispensably necessary organs was the *original* cause of the emaciation, debility, and *consequently* of amenorrhœa." Putting aside the particular case, for Dr. S. does not appear to *found* his general principles upon that case, only to illustrate them by it, and taking a broader ground, let the parties join issue upon the facts. Dr. S. says, "No occurrence is more common than the attack of cough, pain in the side, and difficulty of breathing in females, soon *after* the obstruction of the menses, and upon their recurrence all these symptoms going off." If this be true, then the position of Dr. S. that amenorrhœa sometimes proves a cause of disease *may* be true also; it is not *necessarily* false. Mr. F. says, amenorrhœa or chlorosis, "never were, nor ever can be, the cause of bad health," he never regards them as any thing more than symptoms, or effects of some *previous* disease. "When no remarkable evacuations have taken place, the cause will very possibly be discovered in some derangement of the organs which contribute to the indispensable processes of digestion, chylification, sanguification, and nutrition. When these are in a state of health, there *never will be* amenorrhœa or chlorosis met with. When these organs are in a state of health, the whole system is supplied with what is necessary. The uterus will partake, and *undoubtedly* its functions will be carried *on.*" If cases ever occur in which, during the perfect performance of all these four functions, the menses are *suddenly* suppressed by some accidental cause, as from taking cold; if while "the whole system is supplied with what is necessary, and the uterus is partaking," the functions of the uterus are impeded, *and are not* carried on, then Mr. F's axiom is *not true*, it must necessarily be false. Experience alone can determine this question, and to the experience of our Readers we leave it. We certainly have fancied that we have seen strong healthy girls, with their vessels full of blood, and the uterus partaking, in whom the menses have, notwithstanding, been obstructed, and we have fancied that we have seen paleness, emaciation and debility *follow* this obstruction. If all this should have occurred in persons of certain predispositions, and there had *at length* taken place affections of the lungs, or of the mesenteric glands, and death had followed, we should not have denied that these last affections were *accessory* to the death of the patient, although we should still have maintained the *original cause* to have been the menstrual obstruction.

The INQUIRER, No. XVIII.—Many Practitioners think that the use of mercury has become much too fashionable, and that its indiscriminate employment has been productive of no little mischief. Indeed, some of those who were formerly advocates for its frequent exhibition, now think it necessary to endeavour to check the prevailing rage for this metal. The Inquirer is of opinion, that there are solid objections to so constant an employment of it as has been adopted of late; and when one of its preparations, calomel,

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lomel, has been given in fevers, and recovery has followed, he is inclined to attribute the good effects to its purgative qualities alone.

"A boy, 14 years of age, had his hand torn by a wheel. No material inconvenience was felt for ten days after the accident; he then began to complain of stiffness about his neck and chin; his jaw became locked; and this symptom was followed by pain at the sternum, spasmodic contraction of the abdominal muscles, and rigid contraction of all the muscles of his extremities and back; a quick and small pulse, and great anxiety in his countenance. The wound in his hand was not inflamed or painful, but went on healing, as if the system had not been at all deranged. Affusion of cold water was applied, without any relief to the symptoms; calomel and opium were administered internally, in large doses, for several days; but the disease kept increasing, though not in a violent degree. The warm bath was then ordered, and half an ounce of strong mercurial ointment was rubbed over the abdomen, and on the inside of the thighs and arms, after coming from the bath, every night and morning. These remedies were carefully administered for four days, with manifest advantage. No salivation was produced by the mercury; and no apparent effect, except violent diarrhœa, which began on the second day after employing mercurial frictions; and this was allowed to continue unchecked for several days, as the most urgent symptoms gradually abated, while the bowels were so much relaxed. When the symptoms of tetanus had subsided, some restringent medicine was given; and at the end of three weeks from the commencement of the trismus, the boy was perfectly recovered.

"The recovery of a patient from tetanus induced by a lacerated wound, is not an every-day occurrence; it excites the inquiry, what cured him? The *mercury*, says one physician,—the *purgative*, says another,—the *warm bath*, says a third,—and a fourth will perhaps honestly confess that he is ignorant of the cause, he only knows the fact, that the patient recovered by employing active remedies, when, in all probability, he would have died if he had been left unassisted."

Report of the Diseases of Edinburgh for April, 1810.

By JOHN ROBERTON, M. D.

Till about the beginning of the last third of the month, the weather was, for the most part, either wet or cold, and often both at once, with occasional hard gales of wind. The weather, somewhat similar to that of summer, burst upon us with unexampled fineness. But this only lasted two or three days, when the wind shifting into the east,

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thick fogs pervaded the whole city. For two or three of the last days of the month, however, the weather again became very pleasant.

The barometer was in general low till near the end of the month, when it rose considerably, and continued so till the end.

The thermometer was, unless one day or so from time to time, rather high.

The most prevailing diseases have been chin-cough, a general inflammatory state of the system, stomach complaints and diarrhœa, catarrh both acute and chronic, small-pox, croup, rheumatism, and cynanche tonsillaris.

Measles, which occupied some of our attention last month, seem to have entirely disappeared; at least, no cases of that disease have come under my observation for some time past. Most of the other diseases of last month still prevail, though somewhat various in severity. The chin-cough seems increased both in extent and severity. Indeed, several patients have died of that affection. It is in general only to be met with among infants and children, yet several cases of considerable violence have been met with in persons advanced in life.

The general inflammatory state of the system does not seem diminished in extent, but it now appears more commonly as affecting the whole system than any particular organ of it.

The bowel and stomach complaints, though, perhaps, less extensively prevalent, do not seem at all abated in their violence. Some cases have occurred to me of the most obstinate nature, defying, for a considerable length of time, every application that could be devised for their removal. Temporary relief was easily obtained, and the patients seemed, not unfrequently for several days, entirely free from every symptom of the disease. But, without any evident cause, the most severe griping, accompanied and followed by purging, recurred, which required the very utmost attention, both on the part of the patient and medical attendant, to accomplish a permanent cure.

Although the cases of acute catarrh are very general, yet none of them seem attended by any thing more than temporary inconvenience. A few doses of purgative medicine, with, in severe cases, confinement to the house for a few days, is generally followed by a complete cure. The chronic cases of this disease are, as formerly stated, much more troublesome, rather admitting of temporary alleviation than of complete removal.

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The fevers, as usual, are still common, and in many instances, fatal.

The following diseases seem added to our list since last month.

Small-pox, various cases of which are of the very worst kind. Indeed, Edinburgh still furnishes this disease, though by no means so extensively as previous to the inoculation by the cow-pox, in every variety of severity from the mildest distinct pustule to the disease in its most confluent and dreadful form. From these circumstances, it is unnecessary to add, that of course various of these confluent cases have terminated fatally. So much for the incorrigible stubbornness of bigotted individuals. One child, affected in this way, which I had an opportunity of seeing once or twice before it terminated fatally, had been previously inoculated with the cow-pox. Owing, perhaps, to the inertness of the matter, the family surgeon had performed the operation four different times, but at neither of these was any pustule produced. The child's grandmother, one of those old matrons who prove by their ignorance and impertinence, an indescribable annoyance to the medical attendant, would not allow the operation to be repeated, because forsooth it occurred to her (and what convinced her of the certainty of her opinion was, that she had dreamt about it) that the child was not *ordained* to be affected with the cow-pox. The other members of the family were prevailed on to listen to the remonstrances of this dreamer, and the consequence of this was, that the natural small-pox, of the very worst kind, affected the child, of which, as just stated, he died.

The croup, though by no means a very common disease of this place, has of late appeared much more generally than usual. Almost all the cases have been very severe, and many of them have terminated fatally. Most of those which did not, ran their course very rapidly, and even the most active practice could not avert such a termination. It is scarcely to be credited, in some of these cases, how immense a quantity of calomel was administered without visibly affecting the patient, even in the very slightest degree. In these cases, of course, no alleviation of the symptoms took place; but where salivation was induced, the patients, almost in every instance, very speedily recovered.

Rheumatism, both chronic and acute, has been of pretty frequent occurrence. The acute seems, in general, confined to the young and otherwise healthy part of the community,

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community, and especially to those who, from their occupation, are exposed to much personal exertion. The latter is more common among the old and debilitated. In the former, purging and sudorific medicines, with, after the violence of the symptoms has abated, the judicious application of friction, either with a brush alone, or with any of the stimulating balsamic applications, is of the greatest service. The latter does not require the previous drenching plan, but seems more successfully treated by the friction, even from the commencement of the symptoms. I some time ago gave a formula for pills, which, from the obstinacy of the symptoms, when internal medicines are necessary, I have found extremely efficacious. I need not now repeat it.

Various cases of cynanche tonsillaris have occurred in practice, and of various degrees of severity. The milder cases I have in previous reports had occasion to state, were easily removed by the repeated use of purgative medicines. But other cases have required not only these, but the strictest attention to confinement in the house, with the use of gargles, the application of leeches as near as possible to the parts affected, and a blister all over the thorax. Independently, however, of these active steps, several cases which have come under my observation have proceeded to suppuration.

Princes Street.

In answer to the private Correspondent, who signs himself A FRIEND TO IMPROVEMENTS, and who says he is a reader of the Medical and Physical Journal, but who has not given his address, Dr. Roberton conceives the remarks in his letter, respecting the case of seminal emission, to be rather complicated, and of course of such a nature, that a personal interview with the gentleman can alone admit of their being properly and satisfactorily explained. Dr. Roberton, therefore, judges it most prudent to decline even attempting to answer them in the Medical and Physical Journal as requested; and he does this more readily, as, about the beginning of August, he will be in London for one or two days, when he will be happy personally to communicate to his correspondent whatever information on the subject he may stand in need of.

Dr. James Roberton, Leicester Street, Dr. Roberton's brother, will inform the gentleman, within a day or two of the time when he will be in London.

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INTELLIGENCE.

Since the commencement of the present year, Hydrophobia has been extremely prevalent in France, particularly in the department of Paris. The following official notification on the subject has been inserted in all the French Journals: "The accidents caused by dogs having greatly increased for some time past, the Counsellor of State and Prefect of Police hereby inform such persons as shall in future be bitten by dogs supposed to be mad, that they ought to have recourse to a physician or surgeon within twenty-four hours; experience, which has not yet been contradicted by any authentic fact, having proved, that a deep cauterization of the bites made early with a red-hot iron, is a *certain method* of preventing the developement of hydrophobia. Persons who have been bitten, will find in all the hospitals of France, at all hours, the assistance which these accidents require, The Prefect of Police assures all persons that no reliance can be placed in any other remedy, whatever may be the confidence reposed in them by credulity or ignorance."

M. PARMENTIER has published some reflections on the Hypnum Cryspum, a species of moss, proposed, on account of the dearness of wool, as a substitute for stuffing mattrasses and furniture. The moss, which is of a moderate length, and has a somewhat fragrant smell, grows upon trees, particularly beech, is gathered in August and September, and when beaten like flocks, does not retain moisture or form into lumps like them. It is little liable to decay, and it is only necessary to dry it in the shade to preserve its fragrance. Neither sweat nor urine produces any fermentation in this moss, as it does in wool; but lest moisture should cause it to germinate, it may be steeped in lime water, which destroys its power of vegetation. It is said to be free from the property of imbibing and communicating contagion, which animal substances possess.

M. EBEL, of Bavaria, has recently published a geological work on the structure of the Alps, which is reported to contain much novelty, and to coincide entirely with the experiments made by Humboldt. According to their system, it is not true that granite is the nucleus of the surface of the earth; on the contrary, we find as many strata of granite as of any of the other integral substances of mountains. These strata of stones in the mountains were formed by crystalization in the sea of Chaos, and are found in a great measure on the same line from Savoy to Hungary. The earth, according to these ideas, resembles a prism of crystal, the edges of which have been worn away by the flux and reflux of the waters, without the ruins of these points having entirely filled up the cavities. This view of the subject is expected to lead to important results; but it will at the same time discourage those who still hope to find the solid nucleus of the earth. It begins to be embraced by the geologists of the continent, in preference to the systems which they had before adopted.

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In our number for April, we noticed the recent disappearance of an island situated near the Cape of Good Hope, in consequence of an earthquake. The effects of this phenomenon at Cape Town, are detailed in the following letter from that place, begun to be written on December 6, 1809, and continued at different times:—On the 30th of November, the weather was unusually warm for so early a period of the season, the thermometer varying in the shade from 86° to 92°, with a sky perfectly clear and but little wind. Thus it continued till the evening of the 3d, when a cool westerly breeze, attended with a slight fog, came in from the sea. On the 4th, at nine A. M. the fog still continued; thermometer 74°, barometer 29° 80′. In the middle of the day, the mountains of Hottentot Holland, in the south-east, were covered with fleecy electric clouds, which are often observed at this time of the year. Several violent gusts of wind, which raised the dust to a considerable height in the air, were experienced in Cape Town, the intervals between them being perfectly calm. The sky for the whole day, after twelve at noon, except at Hottentot Holland, thirty miles from Cape Town, was perfectly clear. At five P. M. a strong south-east wind came on, unattended with the usual cloud over Table Mountain, which lasted three or four hours. At ten minutes past ten, P. M. a very violent shock of an earthquake was felt through the whole town, which was succeeded by two others equally tremendous; they continued about twelve or fourteen seconds, and followed each other at intervals of about half a minute, attended with a noise very different from thunder, but much louder. The shocks proceeded in the direction from south-east to north-west. Between the hours of ten at night of the 4th, and six in the morning of the 5th, about fourteen shocks were experienced; and two or three more in the course of the day. Excepting the first three, they were very slight; producing no perceptible motion of the earth, but resembling distant thunder. The last shock was at six A. M. this day (6th), but not stronger than the others. When the first shock was felt, the thermometer was at 77° in the house, probably at 74° out of doors. At two A. M. of the 5th, thermometer 68° in the open air; barometer at five P. M. on the same day, 29° 8′, wind west with rain; the night very dark. Next morning there was a very strong wind from the westward, and some rain. Several meteors, or falling stars, were observed during the night of the 4th, with a very luminous aurora australis. The ships in the bay, although the water was not apparently agitated, were so strongly affected by the shocks, that several men on board them were thrown out of their hammocks. I apprehend that nearly one-fourth of the houses in Cape Town are more or less damaged. Several pillars, urns, and other ornaments, have been destroyed. As yet I have heard of only one house that was entirely thrown down, but a great many have lost portions of their walls, and are cracked from top to bottom. The house which was demolished, was at some little distance from the town. The inhabitants in general forsook their houses during the whole

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whole night of the 4th, and so great was their consternation, that implicit credit was given to a very absurd prognostication, that similar shocks would be felt the next night. Of the Dutch inhabitants, I believe, not one went to bed before day-light. Tents were pitched in the parade, in the market, and in all the open places; and those who could not procure tents, had their waggons brought out and sat up in them. We have as yet received no particular accounts from the country; but innumerable vague reports are in circulation; and the inhabitants of the town, who are extremely susceptible of alarm, give credit to them all. One child of eight years old dropped down in the street, and instantly expired through terror. Two or three persons have been deprived of speech, and several others are suffering extremely in various ways, from the effect of extreme fear. Some are so much intimidated by this unexpected visitation, as seriously to talk of selling their houses and property here, and removing to Batavia. This powerful operation of terror on their minds, may probably appear astonishing to Europeans; but it is to be considered, that the inhabitants of this climate have been hitherto totally exempted from the tremendous convulsions of nature, which are frequently experienced in other quarters of the globe. December 7. We now find that the shocks, violent as they were, have not been felt at the hot baths, about eighty miles to the eastward, nor at sea, as we learn by the Camel, which ship arrived yesterday. It has been generally remarked, that a great many watches stopped, and several lost from two to ten, and even twelve and fifteen hours. Within the last half hour, we have had another slight shock. The inhabitants still continue in a considerable degree of alarm, and every unusual noise is dreaded as the forerunner of an earthquake. The following has been the state of the weather since the above-mentioned shock occurred:—

Dec.	h.	m.		Bar.	Ther.	Wind.
7	10	45	P. M.	30° 20′	70	S. W.
8	2	—	A. M.	— —	—	——
—	5	30	A. M.	— —	—	——
—	3	10	P. M.	30° 15′	73	S. E.
9	6	—	P. M.	30° —	73	——,
10	—	—	——	29° 75′	76	——

No shock since the slight one of the 7th. Weather clear, except occasionally a fleecy cloud about the Table Mountain, aurora australis very strong at night, and many falling stars. It was remarked that animals, particularly horses, were much frightened at the shocks. Several moles are reported to have left their holes, and fled into the soldiers' tents at Wynberg, about seven miles from this place."

Mr. Wells's Gout Medicine was the juice of the berries of the Lacca Americana or Poke, preserved from fermentation by the addition of rum or brandy. The rich red colour induced the manufacturers and adulterators of wine to employ it for that purpose. Mr. Wells was convinced that it would flourish in any part of England

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land, and intended to furnish gentlemen with the means of propagating it in their own gardens, to which he said it would prove a considerable ornament.

Mr. CARPUE will commence his next Course of Lectures on Anatomy and Surgery, on Monday the 11th of June.—For particulars enquire at Mr. Carpue's House, Dean Street, Soho.

Dr. CLUTTERBUCK will begin his Summer Course of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, on Monday, June 4, at a quarter before ten in the morning, at his house, No. 1, Crescent, New Bridge Street.

Dr. REID will commence his Summer Course of Lectures on the Theory and Practice of Medicine, on Friday the 15th of June, at nine o'clock in the morning, at his house, Grenville Street, Brunswick Square.

Dr. GEORGE REES has a new Work in the Press, entitled, Practical Observations on Spasms of the Stomach and other morbid Affections of that Organ, with Remarks on the Use of the Bile in promoting Digestion.

Mr. PARKINSON has withdrawn the Introduction to the Knowledge of Fossils, announced at the end of his first volume of Organic Remains of a former World, considering its publication as entirely superseded by Mr. Martin's excellent systematic outlines of the same subject. The third edition of Organic Remains is in great forwardness.

Dr. STOCK's Life of Dr. Beddoes is in the press. It will comprise an analytical account of the Doctor's numerous writings, both published and unpublished.

The medical student and practitioner will soon receive from the pen of Dr. G. H. TOULMIN, of Wolverhampton, a work under the title of Elements of the Practice of Medicine, in which that important subject will, for the first time, assume all the interest of a practical science.

To CORRESPONDENTS.

Verax, we trust, will see the propriety of our not inserting *both* his papers and thereby disappointing some one of our other Correspondents; indeed that we might be enabled to avail ourselves of all the numerous favours we receive, we sometimes wish that Authors would, as much as possible, avoid redundancy of language, without impairing the value of their observations. It would be the highest satisfaction to us to be distinguished in the Medical World as affording to our Readers, the *multum utile in parvo*.

Censor's letter has been received, and though we cannot insert the *whole*, we will gladly avail ourselves of it with such curtailments as we judge necessary. If Censor objects to our doing so, he will be so good as to inform us by the 10th of the month.

END OF VOL. XXIII.

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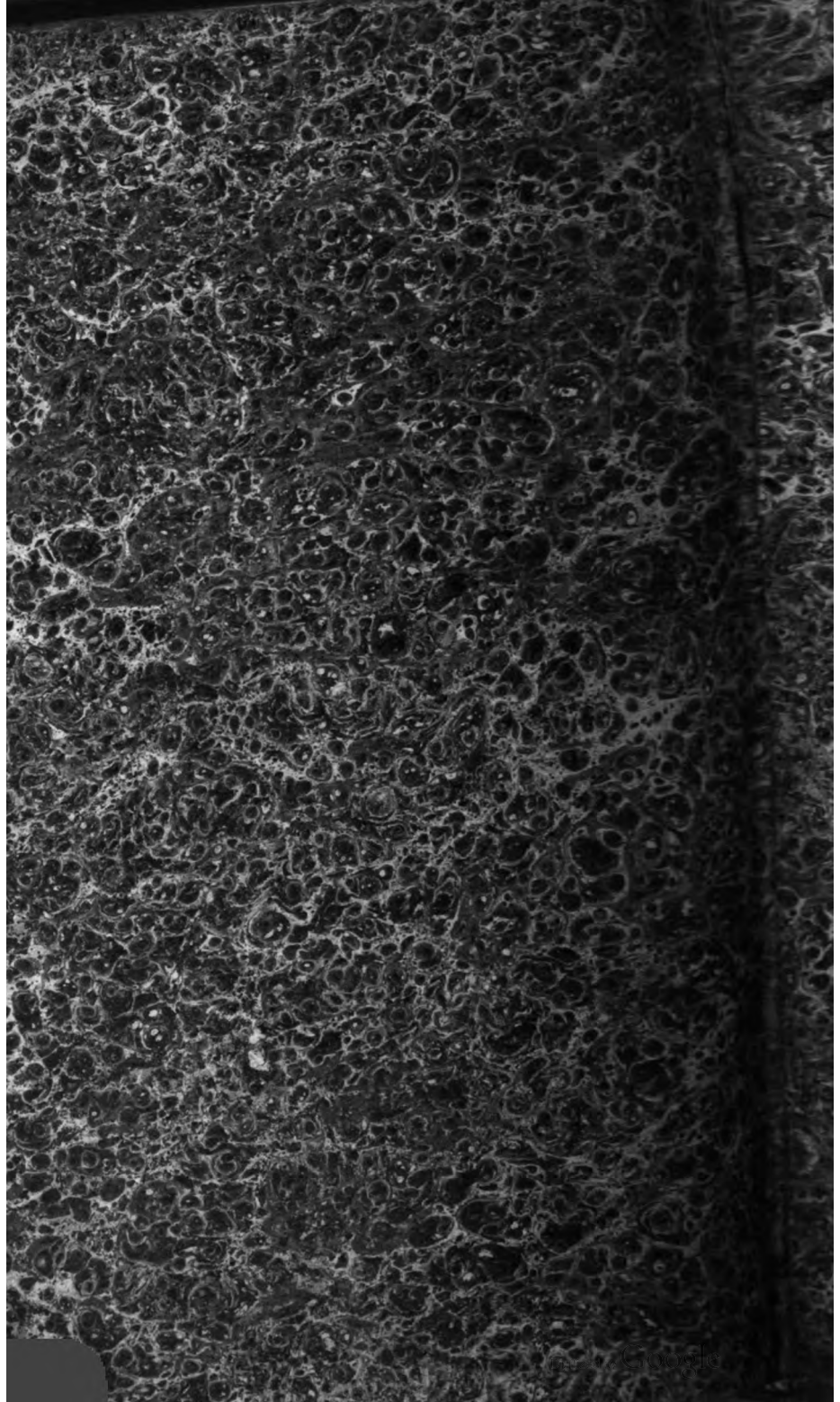

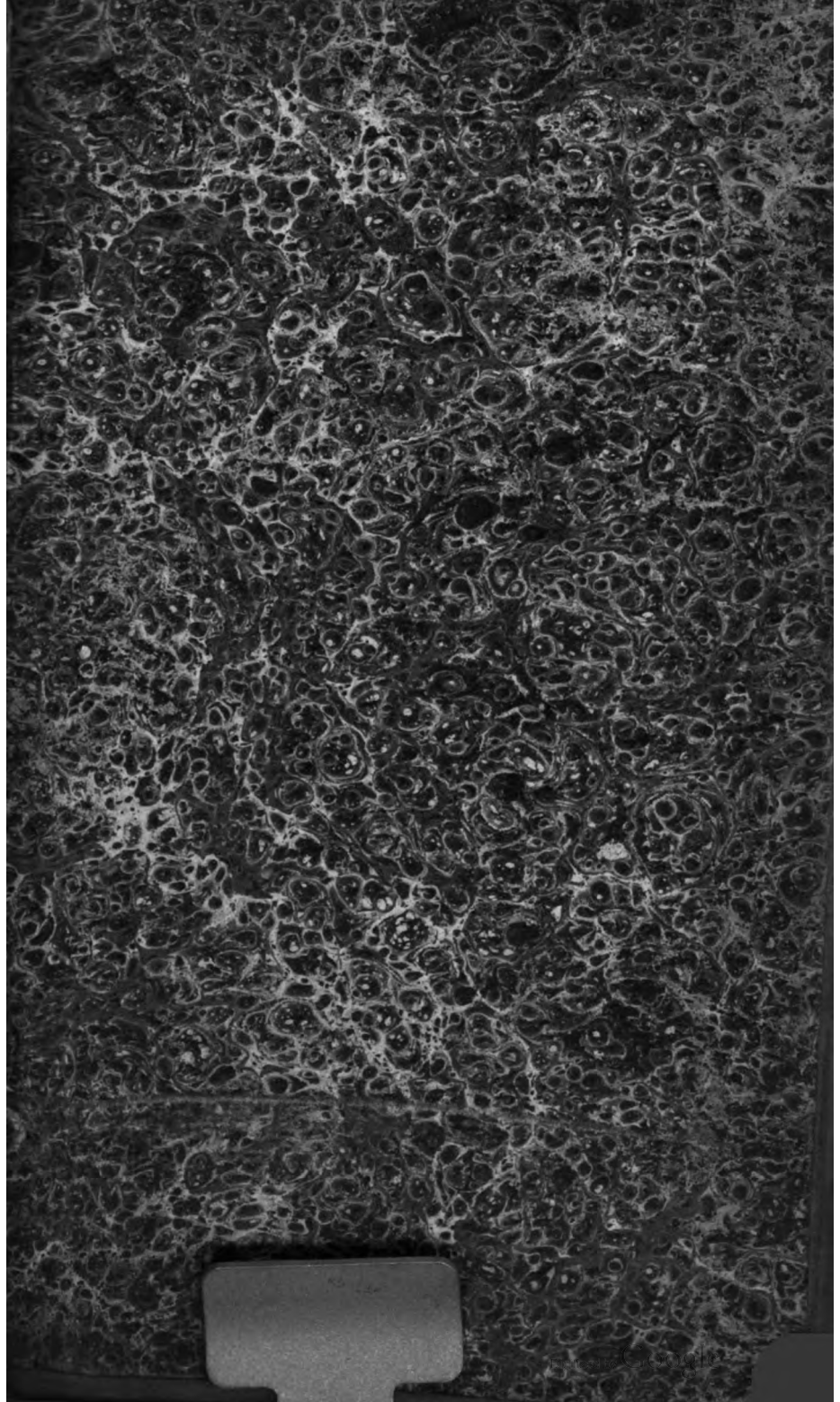

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